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MACFORMAT

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50 ways to make your Mac run faster

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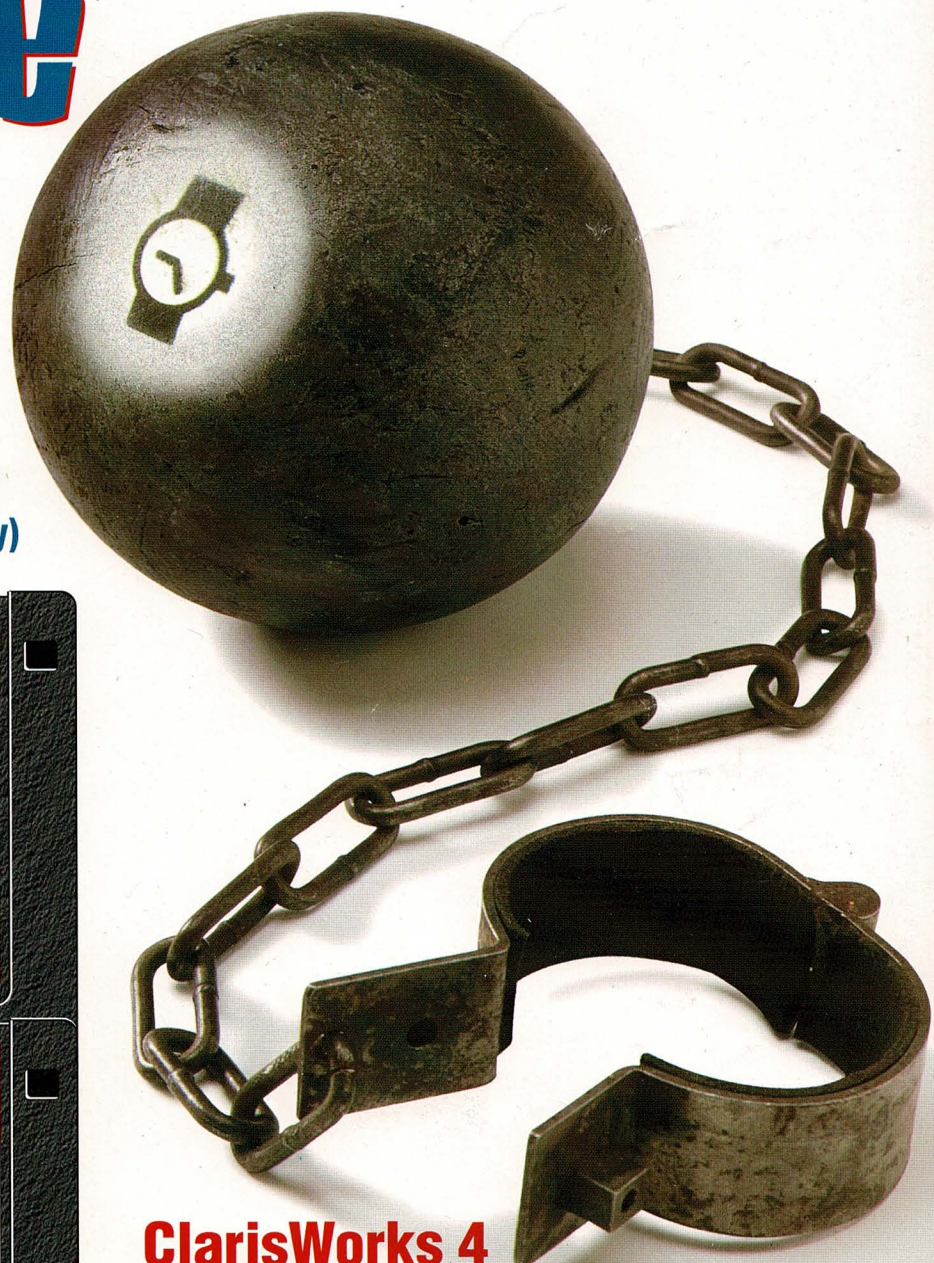

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CH

ClarisWorks 4

The new all-in-one package – should you upgrade?

Doom 2

The long-awaited carnival of gore – worth the wait?

PLUS Windows programs on a Mac ■ How to use masks and channels ■ What to see at Apple Expo ■ Sub-£500 dye-sub printer ■ Programming ■ Mac personal organisers

For more disk details see the back cover

Future PUBLISHING YOUR GUARANTEE OF VALUE

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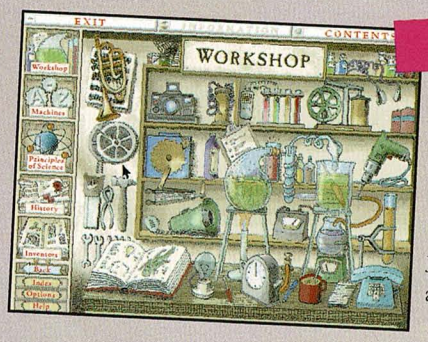
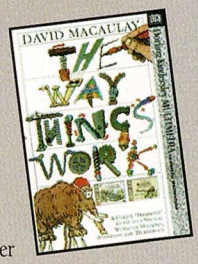
Not all E numbers are bad for you. E22 at Apple Expo

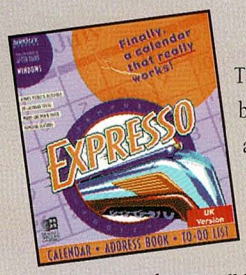
The Way Things Work

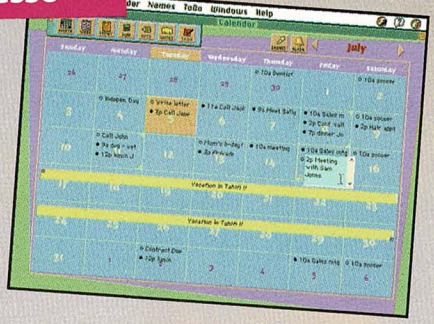




Based on the best selling book by David Macaulay, The Way Things Work is an outstanding multimedia learning tool. From telescopes to telephones, from lasers to light bulbs, more than 200 inventions come to life with the click of the mouse. Children aged 7 to 70 can embark on a journey of scientific discovery with animation, audio and over a thousand illustrations. **CD SRP £50.21**

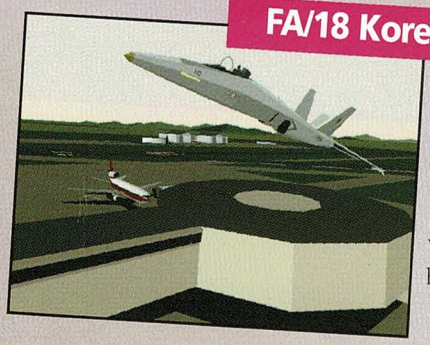
Expresso

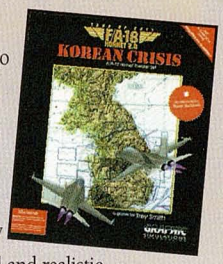




The unique calendar, reminder, to-do and address book system. With Expresso you can track your appointments, share them over a network, print them and even have them as your Macs' desktop background. Choose from many visual styles, import ot export your data, set-up alarms and reminders. It's all here in the most powerful and elegant calendar system around! **SRP £25.52**

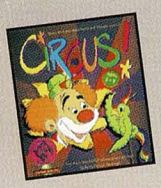
FA/18 Korean Crisis

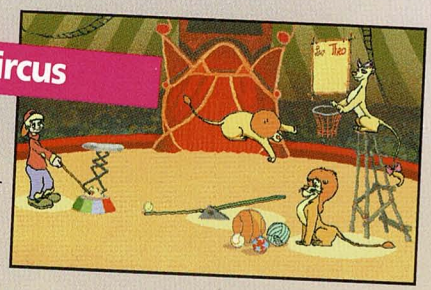




Diplomacy has failed, the embargo has broken down and now they have "the bomb"! The worst has happened and you're selected to fly into a world exploding with action. So pull the straps tight, give the thumbs up and enjoy the ride-into destiny. Korean Crisis brings you a whole new world of chaos depicted with greatly enhanced, detailed and realistic high resolution 3D polygon models. **SRP £34.03**

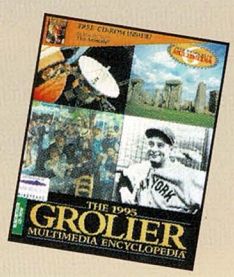
Circus





Explore the magical world of the Circus in this wonderful interactive cartoon. There are 30 places to visit, each with things to do or discover: explore the show tent where you can take part in a variety of acts; make up the clowns in their trailer; visit the animals backstage and play a series of instruments in the music tent. Crisp, fun animation encourages children to develop skills without even realising they are learning! **CD SRP £34.03**

Grolier 96 Encyclopedia



The 1996 edition of this world beating multimedia encyclopedia features a redesigned interface, new and expanded features, guided tours, a yearbook facility and a direct link to on-line information via CompuServe. The CD features 34,000 articles, 8,000 high res pictures, 900 maps and 500 new selections.
CD SRP £63.82

Triazzle

Based on the best selling game by Dan Gilbert, Triazzle will entertain the entire family with beautiful graphics and noises inspired by the rainforest. Rotate and match the triangular pieces—simple to grasp, devilishly difficult to master! Easy option for kids and Star Triazzle for a real challenge. The CD ROM version includes a free Triazzle After Dark module. A donation is made to the 'Rainforest Alliance' with each copy sold.
CD or Floppy SRP £21.27

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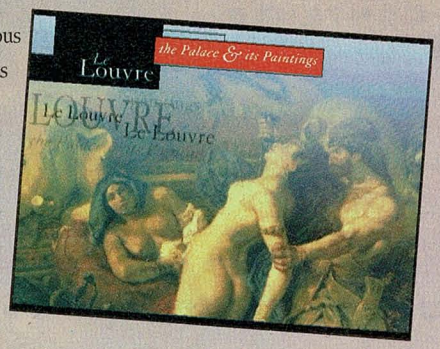
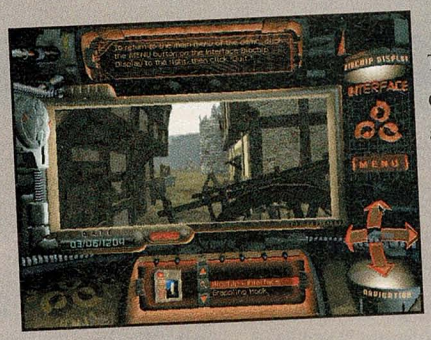
Le Louvre

Interactive journey through the world famous art gallery with the aid of models, blueprints and over 21/2 hours of detailed commentary. Examine paintings in detail and even learn about their form and composition via clear animation and narration. 'a tasteful, elegant & sophisticated CD ROM.' –Rated 5/5 The Mac. 'The most comprehensive and powerful display of art through the vehicle of multimedia' –The Bookseller **CD SRP £38.29**

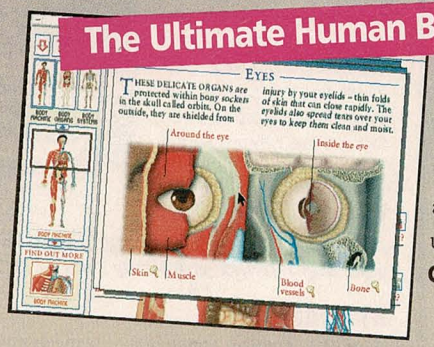




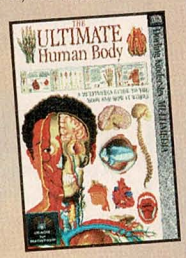
Buried In Time

The walls between past, present and future dissolve into a richly woven tapestry of betrayal and deception. Falsely accused of altering history, you must travel through the shadows of time, unraveling clues and escaping mortal danger, with only your intellect and cunning to save you.'Presto Studios have hit the jackpot with Buried In Time' — PC Attack. **CD SRP £34.03**

The Ultimate Human Body

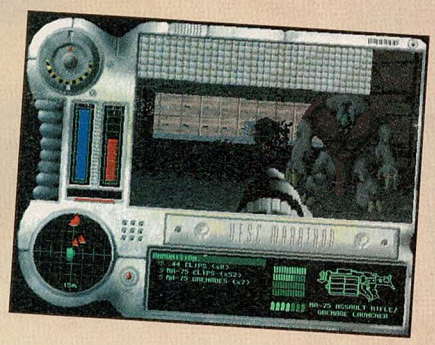

EYES
THESE DELICATE ORGANS are protected within bony sockets in the skull called orbits. On the outside, they are shielded from injury by your eyelids – thin folds of skin that can close rapidly. The eyelids also spread tears over your eyes to keep them clean and moist.
Around the eye
Inside the eye
Skin
Muscle
Blood Vessels
Bone
FIND OUT MORE

Take an interactive journey inside the human body to discover what every part of the body is called, see where it is situated, what it looks like and how it functions. Explore the body through three intuitive, easy-to-use search paths — The Body Machine, The Body Organs and The Body Systems. Over 100 animations, 45 minutes of audio, 1400 sounds and over 1000 illustrations. **CD SRP £50.21**



Marathon

They wait for you. Behind every corner, inside your worst nightmares. You are the last hope for defending the starship Marathon against an onslaught of hostile aliens. Advanced weaponry and surreal settings create a truly unique environment. Marathon has it all — captivating single player gameplay with total network carnage. **CD or Floppy SRP £49.99**



FlightStick & JetStick

The FlightStick Pro is the ultimate combat stick for all Macintosh computers. Programmable controls give you unlimited range of functions for any mission, activate radar; arm and disarm weapons and view outside your aircraft without ever removing your hand from the stick. Three fire buttons, Trigger, Throttle, Trims and an 8-way switch can all be configured via an easy-to-use control panel. The Jetstick offers quality performance at an affordable price. It connects to the ADB port and comes with software that lets you easily customise its features. **FlightStick SRP £85.06 JetStick SRP £51.06**

All prices shown are SuggestedRetail Prices exclusive of VAT.

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MACFORMAT

ISSUE 31 ■ DECEMBER 1995

The Finder

REVIEWS A-Z

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You want to apply an effect to an area of your image, but first you've got to select it. The latest instalment of our image editing series shows you some nifty tricks.

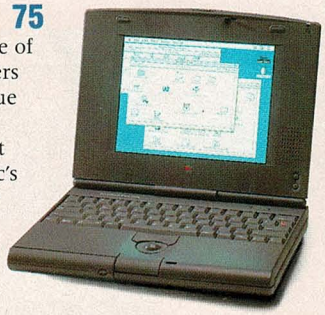
Join the Internet global village 66

Our continuing Internet series introduces Usenet, one of the liveliest areas of the Net. Discover a thriving world of newsgroups and discussions.

Spreadsheets: functions 71

Apart from standard arithmetical functions, all spreadsheets offer fancy functions like compound interest, dates, even automatic alerts – here's how.

Mac Answers 75



Coming to the rescue of distressed Mac owners everywhere, this issue our experts tackle *ClarisWorks*, odd alert messages, the Classic's memory, PowerMac incompatibilities, upgrade options, and even more.

WIN! WIN! WIN!

Performa 5300 30

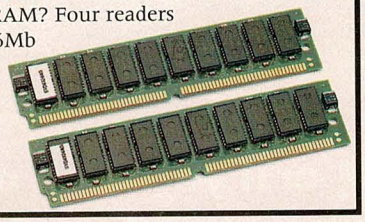
It's not too late to join the digital publishing revolution, demonstrate your creative talents and win a Performa 5300 worth £2,300!

SoftWindows 2.0 144

Win yourself a copy of *SoftWindows* and you can run PC software on your Mac – we've got ten copies, worth over £3,000, up for grabs!

16Mb more RAM 146

Like some more RAM? Four readers will each win a 16Mb RAM upgrade for their Mac from Performance Direct, worth as much as £550!



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The long-awaited blast-'em-up *Doom 2* hits your monitor (hard!), plus the sequel to *The Journeyman Project*, a sub sim, and a gunfight at the 3D Corral.

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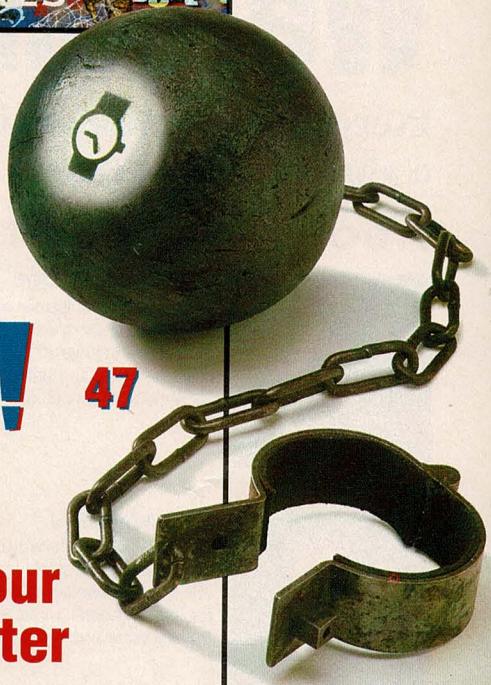

50 ways to make your Mac run faster

No matter which Mac you've got, whatever the size of your wallet, we'll show you how to speed up your machine. Hardware accelerators or other add-ons, software and clever tips – they're all here.

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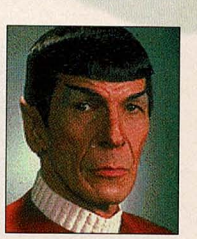
The highlights to look for at the biggest Mac show in the UK, Novémber's Apple Expo in London.



The Star Trek Omnipedia – the history of all things *Trek*.
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Get into programming 83
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COVER DISKS

This issue MACFORMAT comes with a choice of two CD-ROMs or two high-density disks:

Your CD-ROMs 8
Over 1,200Mb of software, including *Color It! 2.3.5* and *Acrobat Reader*, demos of *ClarisWorks 4.0, KPT Bryce, Buried in Time* and others, textures, clip photos, 303 fonts, 150Mb of shareware and everything below...

Your Cover Disks 14
Complete paint/image edit package *Color It! 2.3.5*, games *Factory* and *Cribbage*, utilities *ADB Prober* and *Sweeper, Sucking Fish Filters*, and more!

Welcome to MACFORMAT

Everything you wanted to know about MACFORMAT, plus a glimpse into our most intimate dreams (um, almost).

ABOUT OUR WRITERS

ALEX SUMMERSBY

MACFORMAT's Editor learned everything he knows about Macs by using them, so he never actually learned how to program. But he says that if he could, he'd write an application that could do all his work for him, so he could get some sleep.

RICHARD HILL

Our News Editor and multimedia man says, 'If I could program, I'd create an overhead-view role-playing game like *Zelda* or *Final Fantasy* on the Super Nintendo. I have all the ideas to make the best game ever, but sadly none of the talent.'

COLIN DALZIEL

Our Disc Editor is a whizz with *Director*, so he says he'd create a multimedia extravaganza for us all to enjoy... but he won't have time till he's written a little routine to trawl through all the shareware he has to test out for our Cover Disk.

DEREK SMITH

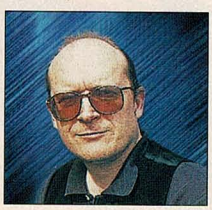
Our technical expert, now in Future Publishing's Mac Services department, says that if he could, he'd write an ultimate diagnostic program, to tell him what was *really* wrong with people's Macs. Either that or *Marathon 3: the Dino Strikes Back.*

ROD LAWTON

Our specialist in spreadsheets, databases, utilities and *ClarisWorks* – if you can be a specialist in all that – also happens to be an expert in *HyperCard.* Asked what he'd write if he could program, he replied, 'What do you mean *if?*'

OFIR GAL

A versatile computing journalist, Ofir turns his eye to new plug-ins this issue. We'll never know what he'd program because Richard can't stop: 'Overhead-view RPGs are the definitive game genre, with an bewitching combination of...'



BRIAN LARKMAN

No doubt you'd love to know what our graphics and 3D expert would come up with, but Richard goes on (and on): '...unfussy, intuitive interface and deep level of player involvement that makes it – Hmm, I really need to get out more, don't I?'

ABOUT MACFORMAT

Welcome again to MACFORMAT, Britain's best-selling Macintosh magazine! Every issue we bring you:

- Tips, techniques and tutorials covering the range of Mac applications, from graphics, spreadsheets and databases to music, multimedia and games.
- Features about exciting Mac developments and novel uses, accompanied by Cover Disk programs whenever possible, so you can discover what your machine can do and try things you mightn't have tried before.
- All the latest Mac-related news, plus all you want to know about the wider issues, the people behind the headlines and the stories behind the stories.
- Authoritative reviews of interesting and affordable products, with clear buying recommendations.
- Cover Disks and CD-ROMs with demos so you can try software before you buy, useful utilities (specially chosen to complement features in the magazine), selected shareware programs, games, readers' contributions and much more.

Whether you're a veteran or a novice, we'll help you get more out of your Macintosh, whatever you use it for.

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ABOUT OUR REVIEWS

Every MACFORMAT review is designed to inform you in detail of what you'd be getting if you bought the product and help you decide whether it's worth your money. It tells you the essentials, without jargon.

MACFORMAT *does not review demos or unfinished programs.* We review only the finished products you could buy yourself, to help you decide whether to buy or not. We give clear buying recommendations, and rate products on this scale:

- 80+% means excellent.
- 70+% means well worthwhile, though not really outstanding.
- 60+% means good, but with a few shortcomings or some limitations.
- 50+% means acceptable but flawed.
- A rating below 50% means you should think carefully before parting with your money.

The MACFORMAT Classic Award

If a product earns a rating of 90% or more, we'll give it a MACFORMAT Classic Award. This means what it says: we judge the product to be a classic, a standard-setter of its type, something really special.

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- We're so overworked, we can't reply to mail personally, even if you include an SAE, or to faxes or e-mail. Nor can we answer technical queries over the phone – sorry!

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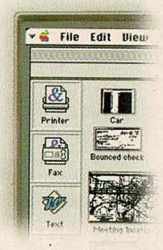

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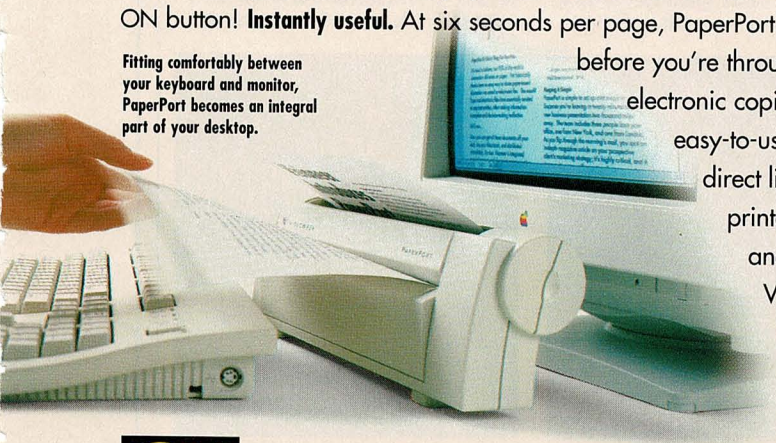

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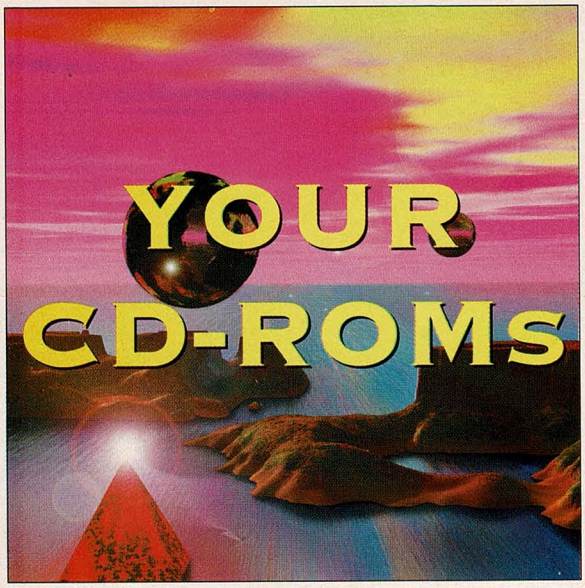


It's a bumper crop this issue, with two CDs crammed full of goodies. Colin Dalziel tries to summarise 1.2 tantalising Gigabytes.

There's over 1,200Mb on our double disc spectacular this issue, including a complete commercial paint package, an amazing landscape creator, over 50 images and 303 fonts, all in addition to the swag of demos, utilities, shareware and reader contributions you've come to expect from MACFORMAT!

On Disc 1

- ***Color It! 2.3.5:*** *complete* paint and image processing package, plus on-line manual and extra Plug-ins.
- **Clip photos:** over 50 high-res full colour photos.
- ***Textures for Professionals:*** 30 textures for all your background needs.
- ***Acrobat Reader:*** viewer for documents in Portable Document Format, with sample documents.
- ***KPT Bryce:*** exclusive save-disabled version of the top landscape creator.
- **Key Fonts/Pro:** 303 fonts in both TrueType and Postscript formats.
- ***In The First Degree:*** preview of the new courtroom game by Brøderbund.

On Disc 2

- ***Buried in Time:*** playable demo of the sequel to *The Journeyman Project.*
- **Demos,** including *ClarisWorks 4.0, Al Unser Jr Racing, Expresso* and more.
- **Internet** newsgroup program.
- **Readers' Corner:** your section, containing programs and artwork.
- **Shareware:** as usual, over 150Mb of software from the Internet, plus a special selection of 'go faster' utilities.

FLOPPY OR CD?

MACFORMAT is available in two editions: this issue, one with two CD-ROMs and one with two high-density floppy disks. Details of the floppies are on page 14. The CD contains all the software on the floppy disk in a folder called Floppy.

KPT Bryce

Save disabled version

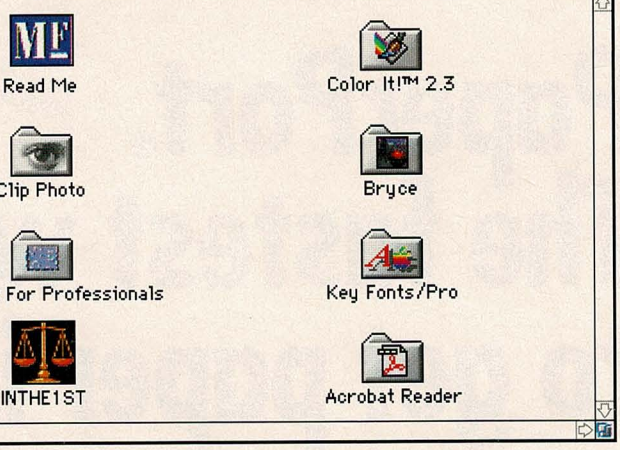
Requires: IIci ***(needs FPU),*** 6Mb, System 7

Bryce is the top software for creating 3D rendered landscapes, from realistic scenery to intergalactic space. Turn to page 12 for a step-by-step guide to getting started. **Note** that rendering requires a math co-processor chip (FPU), so you'll need a IIci or better, like a Quadra or PowerMac. An LC or Performa *will not be able to run the program.*

MacFormat 31

Over 1,200 MB in two disks

Over 7,500 files of programs, utilities, clip art, shareware, demos and much, much more



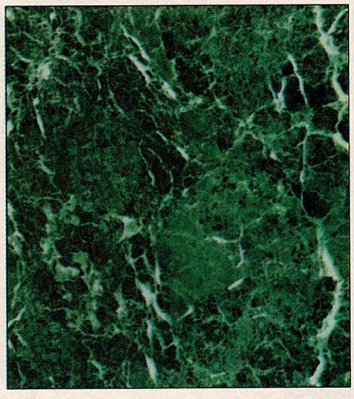
Just some of the exciting and fun patterns you can use to brighten up documents and pictures with *Textures for Professionals.*

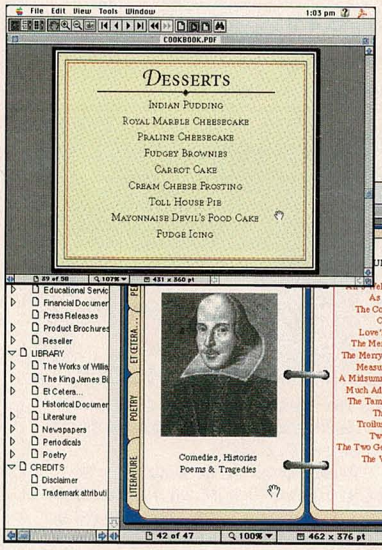
Textures For Professionals

Texture samples

Requires: colour Mac, graphics software (such as *Color It! 2.3,* on CD).

Here are 30 seamless textures for you to use in presentations, as backgrounds, in your multimedia projects, or whatever you want. They range from natural effects such as wood and stone to textiles and sweets, and you can easily 'tile' multiple copies of each texture next to each other to make them as big as you need. We are also offering the full set of *Textures For Professionals* free to new subscribers – turn to page 122 for more details.



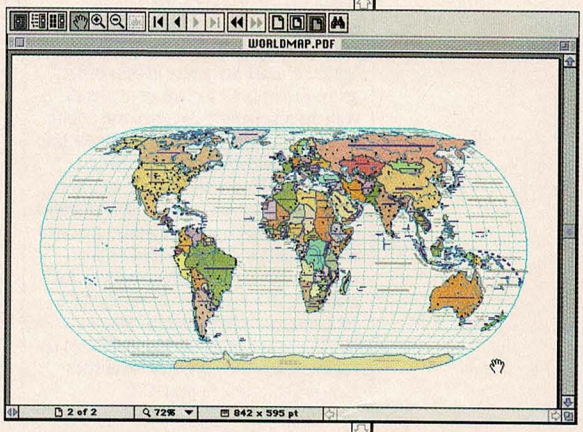


Acrobat Reader

Document reader and sample files

Requires: LC or better, System 7.0 or later

Acrobat Reader enables you to view digital documents generated on almost any computer, from Macs and PCs to Unix systems. You don't need to have the application that created the document, or even the fonts used in it – all you need to do is ensure that it has been saved in PDF (Portable Document Format). There are hundreds of volumes already available in this format, with more being produced all the time. We've included a whole range of files for you to take a look at, from *The Complete Works of Shakespeare* to a copy of the *Evening Standard.*



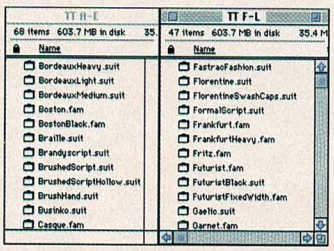
Acrobat Reader can read digital documents, even without the right fonts installed – we've included some for you to peruse.

Key Fonts/Pro

Fonts

Requires: any Mac

It's always nice to have a few fonts to choose from. So here's a complete collection of 303 fonts from KeyFonts, in both TrueType and PostScript Type 1 formats. To make life even easier, we've also included some shareware utilities which enable you to view the fonts without having to install them first. If you like the fonts, see page 120 for a special deal on ten SoftKey CDs.



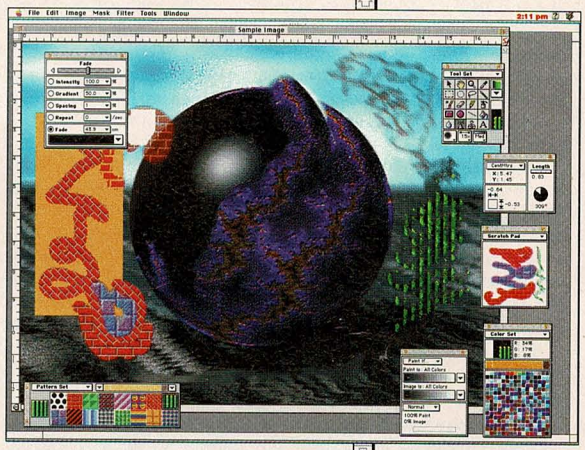
Color It!

Paint / Image processing software

Requires:any Mac, 2Mb of RAM, System 6.0.5 or later.

The star of the show this month is *Color It! 2.3.5.* This is not a demo, not a save-disabled version but the full version of MicroFrontier's brilliant image editing and paint program. Included in the package is an 'on-line' version of the manual and a bonus set of over 20 plug-ins for you to create some amazing effects. There's also a tutorial on page 13 demonstrating some of the splendid effects you can easily achieve with *Color It!.*

If you enjoy using *Color It! 2.3.5,* you might want to consider upgrading to *Color It! 3.0.4,* the latest version. It has loads more image editing features and will only cost you £44.95 – turn to page 122 for full details.

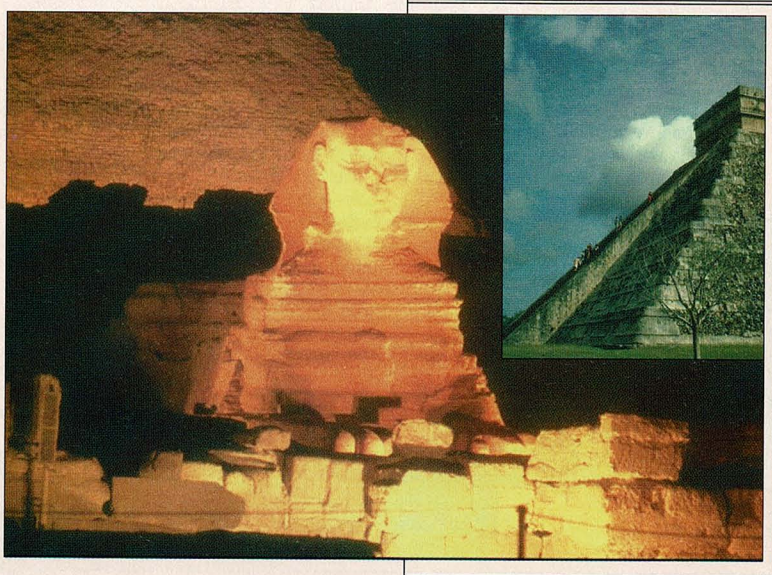


You can achieve some great effects with *Color It! 2.3.5.* Turn to page 13 to get started.

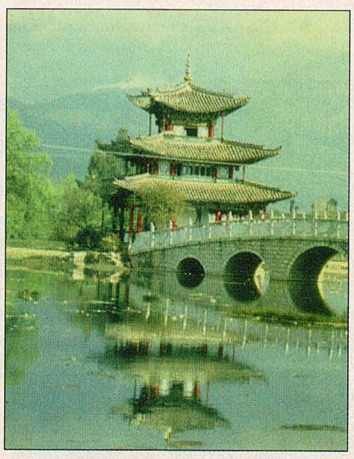
Clip Photos

Samples

Requires: colour Mac, graphics software *(Color It! 2.3* on the CD)



We've got 59 high-quality clip photos for you this issue. 25 of them come from the superb Corel collection and 29 are from a reader's own Photo-CD gallery.



VIRUS? WELL, NO...

Don't worry if your virus checker gives you a warning about the CD. If you get an alert about an 'unknown strain of WDEF and CDEF', it's not a virus – it's just that we use an unusual Desktop file to ensure that the disk works with both Systems 6 and 7.

CUSTOM ICONS

The icons we use on the CD help to give it a friendly atmosphere, but they do slow it down. Install *CDIcon-Killer,* which is in the Resources folder on the CD, if you want to speed things up.

Continued on next page

Go Faster Shareware

Utilities

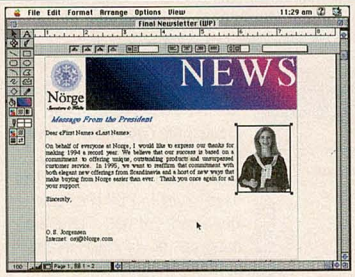
Requires: see individual Read Me files

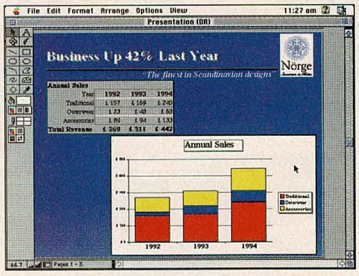
Everybody wants a faster Mac, so to accompany the tips and techniques in our cover feature this issue we've put together a collection of 24 shareware utilities that can do the business for a range of machines. With the programs, Extensions and Control Panels here, you can speed up your AV Mac or IIsi, create a RAM disk (a super-fast 'virtual disk drive' that needs no hardware), or turbo-charge your mouse. You can speed up screen redraws, make scrolling around a window quicker and easier, enable your LocalTalk network to work faster, and much more. We've even thrown in the standard performance-testing program *Speedometer*, so you can see how your Mac measures up. For more details on some of the utilities included here, turn to page 118.

ClarisWorks 4.0

Save-disabled 'Trial' version

Requires: any Mac, 2.5Mb hard drive space





You'd need six dedicated applications to cover all the features included in *ClarisWorks 4.0* – word processor, spreadsheet, paint package, and more. There's a review of *ClarisWorks 4.0* on page 90, but so that you can try it for yourself, we've included the American version of the save-disabled trial. The UK demo version of *ClarisWorks 4.0* will be included on the CD as soon as it's available.

To get yourself started, simply copy the folder from the CD-ROM onto your hard drive – you'll need about 2.5Mb – and away you go.

Various Demos

Games, multimedia and a utility

Requires: see individual Read Me files

Buried In Time is a playable demo of the long-awaited follow-up to the graphic adventure *The Journeyman Project*. As you'd expect, great graphics, wonderful sound and gripping gameplay are all part of the experience. The game is reviewed on page 126, and here's your chance to try it for yourself.

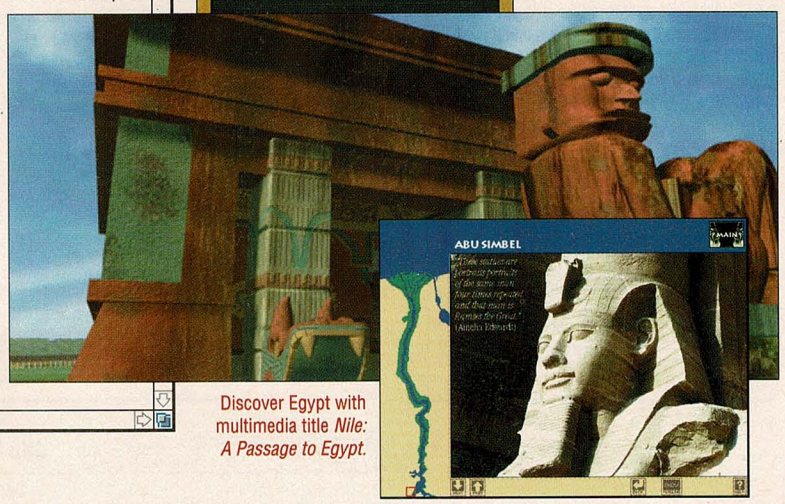
Then there's a sneak preview of Brøderbund's courtroom role playing game, *In The First Degree!*, due out later this year. There's a fascinating behind-the-scenes section, which shows you how the idea for the CD was formed and how the latest in 3D modelling and blue-screen technology was used to create the scenes which appear in the finished product.

If your idea of fun is flying around a race track at breakneck speed, then *Al Unser Jnr Racing* is the game for you. To get the most from this action-packed, fast-moving game, you'll need a PowerMac.

Expresso is one of the best personal organiser utilities around – see our round-up on page 132. This 60-day time-limited version will enable you to find out if it can help you get your life in order – not a bad idea with Christmas looming.

Other demos included are: *Nile: Passage to Egypt*, Living Books sampler (see page 115), *The Escape of Marvin the Ape* (see page 114), *Le Louvre* (reviewed in MACFORMAT 30) and *Links Pro Golf*.

Discover the tense drama of new courtroom game, *In the First Degree!*, due out soon.



Discover Egypt with multimedia title *Nile: A Passage to Egypt.*

Readers' Corner

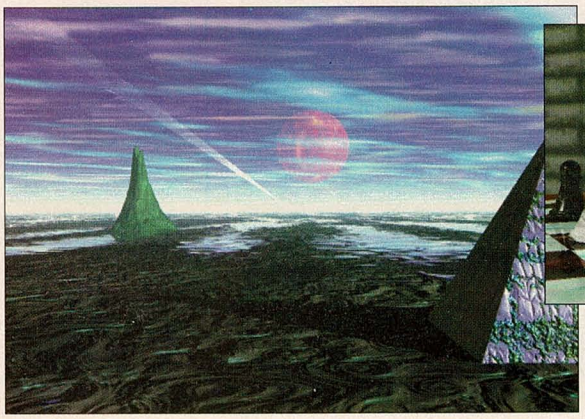
Your contributions

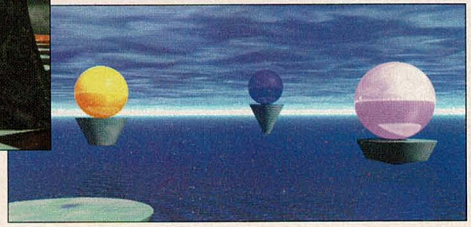
Requires: see individual Read Me files

Another selection of wonderful artwork and software from MACFORMAT readers. This issue we're giving away five copies of *Iron Helix* to the best artwork we received. The winners are Leigh Jackson, Ivan Thomson, Nick Milton, Mark Scott and Andrew Betts. Check out their work on the CD and see what you think!

Could you do better? There are another five copies of *Iron Helix* to be won next issue too. Please note, your images need to be 1,000 x 800 pixels for us to print them in the mag.

Keep those contributions coming in to: The Disc Editor, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.





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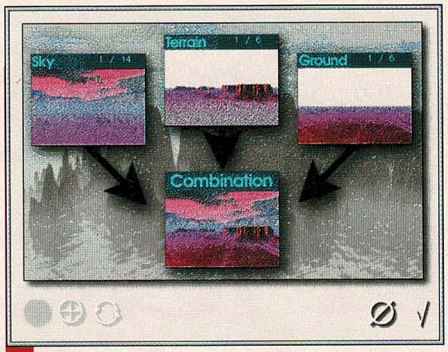
KPT Bryce

The demo of *KPT Bryce* on this issue's CD makes creating complex 3D rendered landscapes not only possible, but easy. Colin Dalziel takes you through the process of creating your first rendered 3D image.

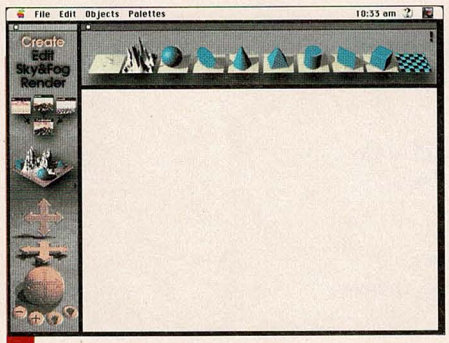
KPT Bryce is the top landscape rendering package available for the Mac, and we are delighted to bring you a save-disabled but otherwise fully usable version on our Cover CD.

Bryce takes all the complexities out of 3D graphics and simplifies them, as far as is possible for what is essentially a highly complex process, by presenting you with an easy point-and-click interface. The best way to get the most out of *Bryce* is to experiment, and with the millions of possible combinations available, no two images need be alike.

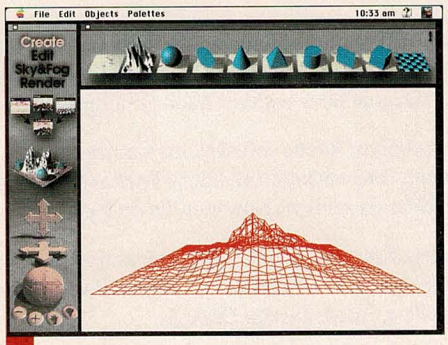
To give you some inspiration, we've also included a gallery of *Bryce* images, which have been created by top designers, as well as some sample terrains from the KPT team for you to use as a springboard to create your own original works of art.



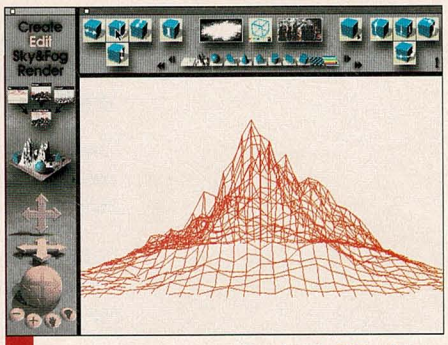
1 When you first start up *Bryce* you are greeted with its Preset Scene Combination window. You can use this to create scenes from a mix-and-match type collection of ready generated models, or you can take these models and alter them to make your own unique scene.



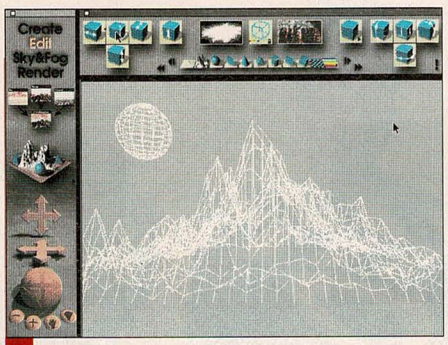
2 To get into the real world of *Bryce*, try starting with a blank scene. Select the zero sign on the Preset Scene option to start with a new world. You are then presented with a blank screen, with only toolbars and menus showing. The shapes at the top of the screen are those you can place in your scene. To place a shape, simply click on the required icon.



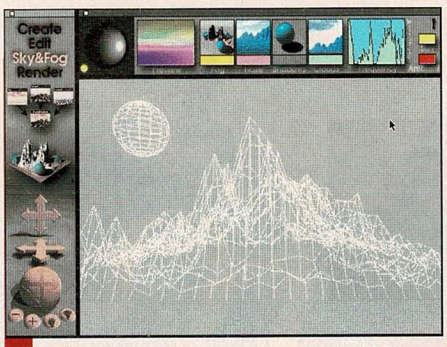
3 If you click on the mountain shape in the Create window you will produce a mountainous wireframe shape in the Scene window. The shape that you are given is a standard shape, which you can then customise to make your own unique mountain. You'll probably find it's wiser to work on only one shape at a time – because they're all wireframes, it can get pretty confusing in there.



4 To customise your mountain, select the **Edit** palette from the **Palette** menu. At the top of the screen is a range of tools, which enable you to enlarge, reduce, thin, thicken, or rotate the selected object. You can also move the selected object around the screen by simply dragging it to where you want it. In the example above, the base of the mountain has been lowered below ground level so that you don't see the straight edges of the model.



5 To add another object, such as a globe in the sky, return to the Create palette and click on the model of a sphere at the top of the screen. The sphere appears in the centre of the screen, and you can move it by simply dragging with the cursor. You now need to give the globe a texture and suitable colour. Select **Edit** from the **Palette** menu, and click on the Texture window, which is on the right of the 3D cube model at the top of the screen. You're presented with a window that gives you a choice of options for textures and colours. To start with, it is best to click and drag on the image in the Materials Presets section. This enables you to select from a wide range of pre-defined textures – once you find the texture you like, click on the tick in the window and that texture is applied to the globe.



6 The next thing to do is to add some sky and fog to your scene. Select **Sky and Fog** from the **Palette** menu, and the Sky Edit window is displayed, which gives you full control over the sky you're creating. To design your own sky, simply click and drag on the various windows to increase or reduce the level of each option, such as fog level and cloud density. Select colours for each option by clicking and holding the mouse button down on the white box at the bottom of each window. The colour of the sun and ambient light have their own boxes – a simple click-and-hold action accesses the full range of colours. You can undo your most recent action at any time in wireframe mode using the standard **[command] Z** command.

7 You're now ready to render your scene, which will produce the final image. Select **Render** from the **Palette** menu and click on the Render button. This is the bit that takes time – anything from a few minutes for a small, simple image to several hours for something more complex – but if you've got everything right the wait will be well worthwhile. If you want to check first, you can select one portion of the image to test-render first, and then go on to render the rest. If you want to change something, you need to go back to the wireframe view – just select the Create window again. All done? Now try another yourself.

Color It! 2.3.5

It's not time limited and it's not save disabled – on this issue's floppy disk and CD-ROM we present you with a complete working version of *Color It!* Colin Dalziel gets into image manipulation.

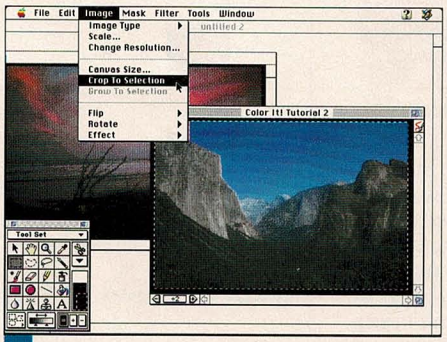
Color It! enables you to create artwork from scratch or manipulate existing artwork to obtain a vast range of effects. This simple guide shows you some of the possibilities you can achieve using this excellent image editing and paint program.

First, you need to install *Color It!* on your machine. If you're installing it from the CD-ROM, just copy all the files from the CD onto your hard disk. If you are installing it from the floppy disk, click on the installer and follow the on-screen instructions.

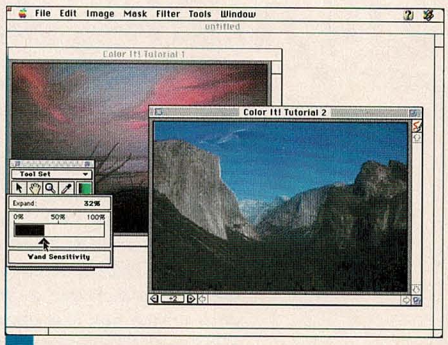
The tools in *Color It!* are similar to those in other image editing and paint packages, but if you are unsure of any, take a look at the software version of the manual, which is included with *Color It!* on the Disk.

The basic tools are straightforward and easy to get the hang of, so let's look at how to do some powerful image manipulation. The images in the tutorial are taken from this issue's Cover CD, but you can, of course, use your own images to create similar effects.

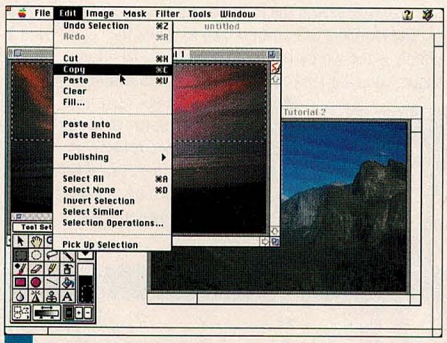
Once you've started *Color It!*, select **Open** from the **File** menu and select the images you want to work on. The two images in the tutorial are numbers 6 and 11 from the *Around the World* collection. The job in hand is to take the sky from image 11 and place it into image 6 – here's how it's done.



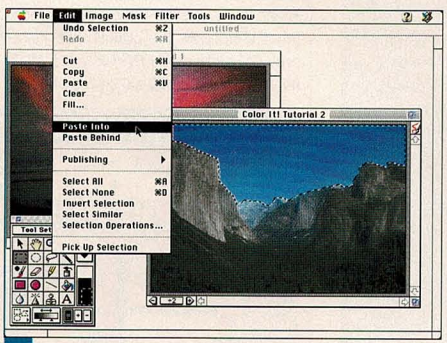
1 The first thing to do is to remove the black border from around the images. Select the Rectangular Marquee from the Toolbox and draw a rectangle around the area you want to keep. From the **Image** menu select **Crop To Selection** and the unwanted area is removed.



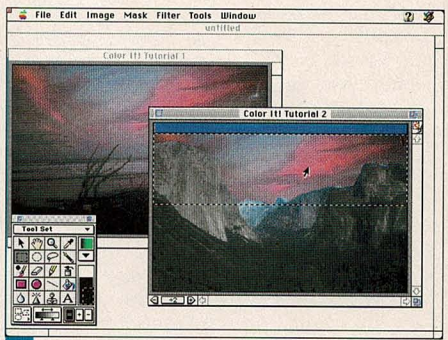
2 By using the Magic Wand selection tool from the Toolbox, you can select areas of similar colours. You can set the sensitivity of the Wand by clicking on the box at the bottom left corner of the Toolbox. Setting the sensitivity can take a bit of getting used to, so try different settings until you're familiar with how this affects the selection. With the tool set at 35%, a single click on the sky selects most of the blue area. Any areas that are not picked up need to be added to the first selection. To do this, hold down **[command]** and click on the unselected area.



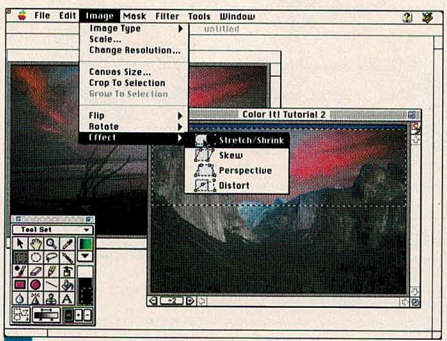
3 Now you need to get the sky to paste into this area. Moving to the image with the sunset, select a section of sky with the rectangular marquee, and copy it.



4 Return to the other image and select **Paste Into** from the **Edit** menu. This constrains the pasted area to appear only in the previously selected area of sky, so that it appears to be behind the mountains.



5 Be sure to use **Paste Into** – the usual **Paste** command will place the sky on top of the image. You'll notice, after the new sky is pasted in, that it isn't quite big enough to fill the whole sky, so you need to enlarge it slightly.

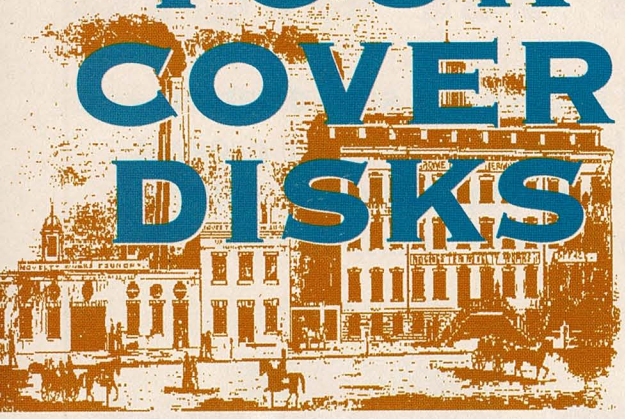


6 With the sky area highlighted, go to the **Image** menu, then the **Effects** submenu and select **Stretch/Shrink.** You can now enlarge the size of the sky by dragging one of the top corners of the selected area.

7 The image still doesn't look quite right, so you need to remove the hard edges which are obvious at the join of the mountains and the sky. Select the Blur tool from the Toolbox and set the blur intensity to Light by clicking on the bottom left of the Toolbox. To soften the edges, move the Blur tool across the areas where the pasted sections meet the original image.

8 The image has been transformed quickly and easily using the power and versatility of *Color It!* You can, of course, do much more with *Color It!* – read through the on-line manual to get an idea of its abilities. Our continuing image manipulation series (page 63 this issue) will help you get the most out of this brilliant image editing package.

YOUR COVER DISKS



The wonders of compression techniques enable us to bring you a massive 7.2Mb of software. Colin Dalziel leads the way.

Not only do you get two Cover Disks this issue, but for the first time we've included a full commercial package – *Color It! 2.3.5* (see page 13). We've also included a set of plug-ins, with which you can filter and manipulate your images to your heart's content, plus games to help you relax at the end of a long day, and loads of utilities to help get your Mac running just the way you want it. Brilliant!

START HERE

High density floppy disks normally contain up to 1.4Mb of software, but to bring you as much as possible, we use a compression program to fit more on. So you need to decompress the software before using these disks, and this month you'll need 7.2Mb of hard disk space. We also recommend that you always make a backup of the MACFORMAT Cover Disk, just in case anything goes wrong. Here's what to do...

1 Ensure the original Cover Disk is write-protected (move the tab so that you can see through the hole).
2 Insert the MACFORMAT disk.
3 Drag the Disk's icon over your hard disk's icon.
4 The contents are copied onto your hard disk, but are still compressed and cannot be used yet.
5 Drag the Cover Disk icon to the Wastebasket to eject the Disk.
6 Insert a blank high density disk.
7 Drag the MACFORMAT 31 folder from your hard disk onto the blank disk's icon to make your backup.

To decompress the Cover Disk, open the MACFORMAT 31 folder on your hard disk.
1 Double-click on the MACFORMAT 31 icon.
2 Click **Continue**.
3 A box then asks you where you want to save the software. Choose the place on your hard disk where you want everything stored and click **Save**.

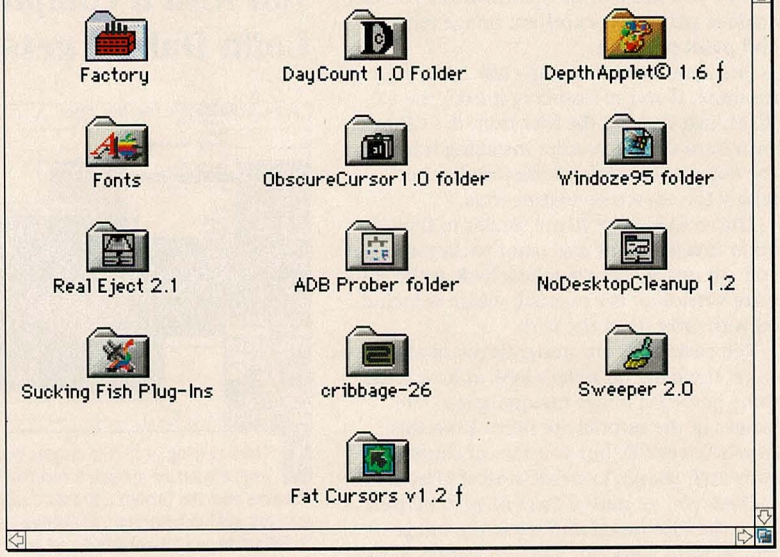
Before installing the Cover Disk, we always recommend that you back up any important work on your hard disk. This precaution will avoid problems should it transpire that any of the software isn't compatible with your setup.

We make every effort to check our Cover Disks for compatibility and viruses, but the information here is intended as a guide only, and MACFORMAT cannot be held responsible for any damage to data, any inability to use this software or any resulting losses. So please, take the precaution of backing up first.

MacFormat 31b

3 MB in disk

Utilities, games and applications

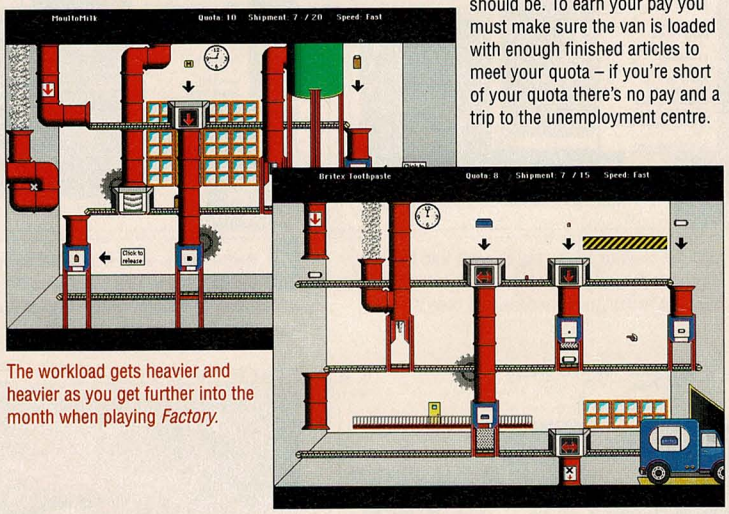


Factory

Strategy game

Requires: colour Mac, System 7 or better

When you get home after a hard day's work, you can now spend the evening at the *Factory*. Your job is simple: all you have to do is click on the right machine or conveyor belt to move the required parts to the right place. It starts off simple – just a tube of toothpaste and its lid – but it isn't long before you have to run all over the factory making sure different parts get to where they should be. To earn your pay you must make sure the van is loaded with enough finished articles to meet your quota – if you're short of your quota there's no pay and a trip to the unemployment centre.



The workload gets heavier and heavier as you get further into the month when playing *Factory*.

ADB Prober

Utility

Requires: any Mac

Up until now there has been no way of checking your ADB (mouse and keyboard) port for problems such as bad connections or faulty equipment – what you really need is the equivalent of *SCSI Probe* (which is so handy, Apple now include it with System 7.5). So now, to pre-empt all those problems you're expecting with your ADB port, we bring you *ADB Prober*. This tiny utility works in a similar way to *SCSI Probe* – it locates all the devices connected to your ADB port and helps you to trace any problems back to their source.

GOT A PROBLEM?

If either of your cover-mounted high density disks or CD-ROMs is defective, return it to us and we will replace it. Please make sure you have followed the installation procedures described in these pages correctly, to ensure that there is a physical problem with the disk itself. Otherwise, the replacement will be just the same!

Return HD disks to:
Discopy Labs
PO Box 21
Daventry
NN11 5BU

Return CD-ROMs to:
MACFORMAT CD returns
Future Publishing
FREEPOST (BS4900)
Somerton
Somerset
TA11 6BR

Enclose a self-addressed padded envelope (but we'll pay return postage) with the disk or CD, and a description of the fault. Please do not return disks or CDs to the editorial office; we don't hold any stocks of them and can only refer you to the addresses above.

Utilities

Various

Requires: see individual Read Me files

Changing your monitor settings is a tiresome little routine, but *DepthApplet* saves you the bother by giving you a small floating palette which enables you to change the settings with a single click of the mouse.

DayCount is a simple little utility that counts how many days are between the current date and the date you supply. Great for working out how long it is to your birthday.

With *DepthApplet* there's no need to go to the Control Panel to change your monitor settings.

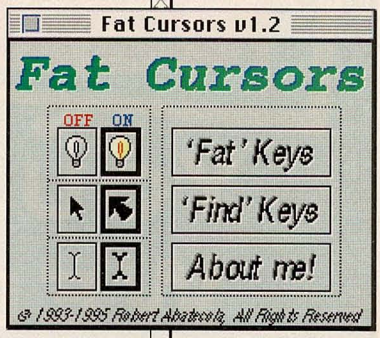
If you ever have problems locating your cursor, *Fat Cursors* is for you! It simply enlarges the size of your cursor, and if you still have problems, it also enables you to assign hot keys to highlight where the cursor is. PowerBook users will find this particularly useful.

It's easy to accidentally clean up your Desktop when you mean to empty the Wastebasket. *NoDesktopCleanup* helps you avoid this happening by assigning a dialogue box to any Apple menu item you want, which means you have to confirm that you really do want to clean up the Desktop before doing it.

Screenshot are often messed up by the cursor appearing in the corner of the grab. *ObscureCursor* saves you from the hassle of getting rid of the cursor, by making it invisible while you're grabbing.

When you eject a disk from within an application you get those annoying ghost images on your desktop. *Real Eject* makes them a thing of the past and keeps your Desktop nice and tidy.

And in the last few bytes of space on the disk we've managed to squeeze in four TrueType and PostScript fonts from the Key Font/Pro collection to expand your typographic collection.



Fat Cursors – a metaphor for the hopelessness of life, or a handy utility?

Sweeper

Disk utility

Requires: any Mac

Sweeper is designed to free up valuable space on your floppy disks. It does this by deleting a file called the Desktop Database, which is used by the Finder. Normally, whenever you delete or rename files, the Finder does not remove the files' old information from the Desktop Database, which means the database just keeps getting bigger and taking up more and more space on your floppy disks. After a few file deletions the database can be two to three times larger than it should be, which on a floppy disk can be around 100K of wasted disk space. With *Sweeper*, you can reclaim all that real estate. It works like this: before a disk shows up on your Desktop, *Sweeper* checks the age of the Database – if it is older than the number of days you set in the Control Panel, *Sweeper* deletes it. The Finder then looks for this database, and if it has been deleted, builds a new one. So install and use *Sweeper* now!

Did you know the Finder automatically fills up floppy disks for you? Fight back with *Sweeper!*

FLOPPY TOO

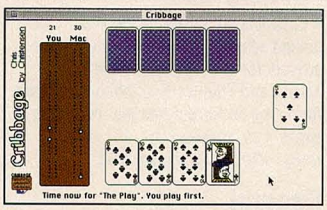
We are always on the lookout for readers' contributions for the floppy as well as the CD, so don't be put off just because you don't have a CD-ROM drive. Send them in to the address on page 6.

Cribbage

Card game

Requires: any Mac

Card games come and go, but at over 300 years old Cribbage has stood the test of time. If you've never played it before, this Mac version will take you from complete beginner to expert standard. While you're learning, your Mac counts up your score for you; then, once you've mastered the game, you can do it all yourself. If, on the other hand, you already know how to play Cribbage then taking your Mac on in expert mode will put your technique to the test.



Are you good enough to play Cribbage against your Mac in expert mode?

Windoze 95

Startup screen

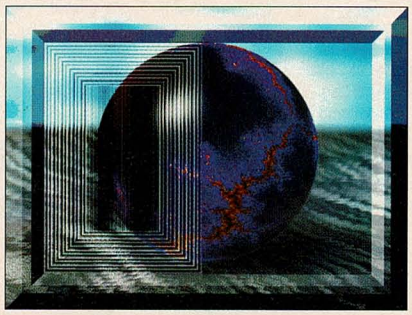
Requires: colour Mac

Just so you don't feel left out of all the hype that has been going on since August, we have included a Windoze 95 startupscreen for you. Just put the file into your System Folder and rename it **StartupScreen.** As if by magic you'll be greeted with the Windoze screen every time you switch your Mac on!

Sucking Fish Filters

Graphic filters

Requires: colour Mac and graphics software *(Color It! 2.3.5* on disk)



Create images in *Color It!*, then customise them using the *Sucking Fish Filters* – a set of six brilliant plug-ins.

Filters and plug-ins can easily cost over £100 per set, which makes *Sucking Fish Filters* from Japan a real freeware treat. There are six filters in this set, and you can use them all with *Color It!* to create some impressive effects.

Included in the six is the strangely named DekoBoko, a filter that enables you to create a frame around or within an image, and Magical Curtain, which gives you an infinite range of light blending effects to experiment with. Your best tactic is to put the filters into your Scanners & Plug-ins folder in *Color It!*, open up *Color It!* and try out all the effects for yourself.

NEXT ISSUE

Next issue we are featuring the best of our reader art. If you'd like to star in MACFORMAT, please send your contributions to the usual address. We are particularly interested in showing how you create your artwork, so feel free to include as many intermediate screenshots as possible.

You can find MACFORMAT and all of Future's other magazines on our FutureNet site on the World Wide Web. We've also hunted out links to plenty of other great Internet sites as well.

Getting connected

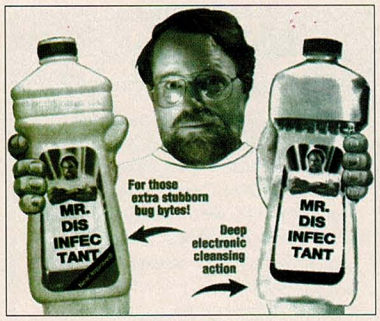
All you need to connect to FutureNet is a modem and an Internet account like Demon or CityScape, or a direct server connection. There are no hidden charges – FutureNet is absolutely free!

Just use your World Wide Web browser to connect to

http://www.futurenet.co.uk/

Win a Mac!
MACFORMAT
What's new on FutureNet
Last updated: 2 October 1995, 1740 BST
Message from the Editor
News
FutureNet Computing News - information technology stories from around the world
FutureNet World News - all the top stories from around the world
Gallup Games Charts - week ending 2 September 1995
MacFormat News - all the latest goings on, from MacFormat
arcane - read all about Future's latest magazine launch
EuroNews - Frank Charlton brings you all the latest ST news from across the Channel
ST FORMAT News - all the latest from the Atari news desk, from ST FORMAT
ST FORMAT feedback - readers' letters from issue 75 of ST FORMAT
PC Plus news - news on Intel, plus an e-mail interview with Microsoft UK
What's Happening - current Internet news and events, from .net magazine
The Events Calendar - mountain bike races and events around the UK, from MBUK
Amiga A1200 bundles announced - hot news from Amiga Format
First XV needs contributions for its first letters page

New features are added to our FutureNet site every week – keep an eye on what's new using our handy What's New on FutureNet page.



John Norstrad, the bloke behind *Newswatcher* (you can find it on this month's CD), which you can use to take part in newsgroups on the Net.

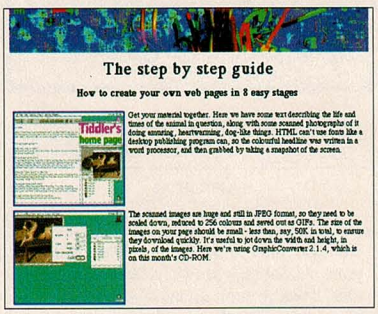
You can read pages from all Future magazines on our FutureNet site, and MACFORMAT's own pages offer a range of news and features, plus links to other sites offering more information on some of this issue's topics. We also offer links to help you explore the world of newsgroups, the great debating chamber of the Internet (see our feature starting on page 66). And there are tips and software to help you enter last issue's competition to design a Web page and win a Performa 5300 (see page 30) – there's still plenty of time to enter.

More Mac info is available through the daily FutureNet Computing News service, which has a Mac section. An even wider scope is covered in the World News section, including the latest political developments and sport.

To use these services, your Mac has to be connected to the Internet and you must have a Web browser program like *Netscape Navigator* or *Mosaic*. There's absolutely no charge to visit FutureNet itself, and according to our latest figures, FutureNet now receives over three million hits each month. You could join them.

RICHARD HILL

Pixel Pushers shows you the variety of styles that artists can achieve using modern computers. Prints are available to buy – order over the Net.



Once you're on the Web, you can find out how Web pages are created. Just look at MACFORMAT's step-by-step tutorial – or see last issue.

LINKS FOR THIS ISSUE

You can visit any of these sites by typing its address (which is given below each title) into the Location line of your Web browser. Or you can go to the World Wide Web Road Map section of MACFORMAT's pages on FutureNet. You can find direct links to each of these sites and any addresses mentioned elsewhere in the magazine, as well as dozens of others. This issue's links will be maintained until at least Friday 2 February 1996.

Arts & Entertainment

The Spider's Web: Star Trek
http://gagme.wwa.com/~boba/trek.html
This jumplist offers a fascinating trip into the mind of the *Trek* fan, with links to areas as sensible as the official Paramount page for the new *Voyager* series or as bizarre as the site that lists the different energy particles mentioned in the series. There are also loads of useful episode guides and a chance to play *TrekMUSE*, a text-based game based on the characters.
Star Trek Omnipedia review, page 105.

Computing

JLNStuff
http://www.astro.nwu.edu/lentz/mac/jlnstuff/home-jlnstuff.html
John Norstrad is the talented author behind shareware essentials like *Disinfectant* and *Newswatcher*. Download the latest versions of his excellent programs and meet the writer.

Land o' Mac Geeks
http://www.info.apple.com/dev/geeks.html
An unlikely title for an official Apple page, but hey, programmers aren't all dull and boring. Land o' Mac Geeks is a treasure house of links and resources for aspiring and practised Mac programmers.
Programming feature, page 83.

Russification of Macintosh
http://www.pitt.edu/~mapst57/rus/russian.html
You can make your Mac Russian with the help of this site. Here you can download Russian-style Cyrillic fonts and learn how to get them working on your Mac.
MacroScope in Russia, page 34.

Usenet Info Center
http://sunsite.unc.edu/usenet-i/home.html
If you're finding the diversity and sheer number of newsgroups out there too much, use this site's blend of guide and browsing facilities to make sense of the thousands of groups available.
Global village, page 66

Usenet Newsgroups: Resources
http://ancho.ucs.indiana.edu/NetRsc/usenet.html
This site offers an exhaustive guide to newsgroups – how they work and where they came from. And if you're already a complete news groupie, it also includes information on creating groups.
Global village, page 66

Design & Graphics

Pixel Pushers
http://www.pixelpushers.wis.net//XPix/The_XGallery.HTML
A Canadian art gallery on the Web, with limited edition prints of computer-made artwork for sale. Artists include Kai Krause and Thomas Berryhill (whose work forms the background to the 'Your Web pages' box, above).
Image editing feature, page 63.

General

Window-to-Russia Home Page
http://www.kiae.su/www/wtr/
Take a tour of the Kremlin and discover the new Russia in this guide to Russian resources on the Web. It also points you towards some Russian fonts, which you'll need to read some of the pages.
MacroScope in Russia, page 34.

Jumplists

The Macintosh Corner
http://www.iscs.nus.sg/~limyeech/graph.html
A resource list of software and on-line publications, this also provides links to multi-user dungeons (MUDs) – take on other Mac owners in a fantasy battle.

Do you need some vital information to complete an important document?

Do you need technical advice, because your Mac has developed a curious allergy?

Or do you just want a demo of the latest and greatest Mac game?

Welcome to eWorld.

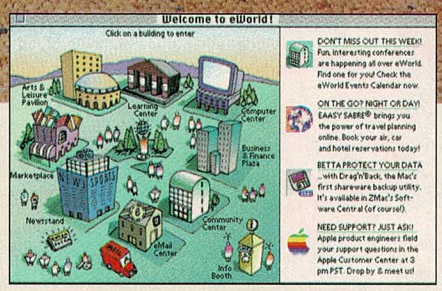
The on-line service from Apple.

Life today? A bit of a juggling act. There's work, family, finances, friends (remember them?) and so much more.

Now, there's a new and simple way to keep your busy life organised thanks to eWorld.™

With eWorld at your fingertips, you have the electronic world in the palm of your hand – an on-line service from Apple and easy access to the Internet and World Wide Web.

You can help your children do their homework, with on-line resources like Grolier's Encyclopaedia. You can get the scoop on world news as it breaks, read the latest film reviews and of course – catch up on the sports results.


Welcome to eWorld!
Click on a building to enter
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Learning Center
Computer Center
Business & Finance Plaza
Marketplace
Newsstand
Community Center
Mail Center
Info Booth
DON'T MISS OUT THIS WEEK! Fun, interesting conferences are happening all over eWorld. Find one for you! Check the eWorld Events Calendar now.
ON THE GO? NIGHT OR DAY! EAASY SABRE® brings you the power of travel planning online. Book your air, car and hotel reservations today!
BETTA PROTECT YOUR DATA with CrayWTask, the Mac's first shareware backup utility. It's available in ZMac's Software Central (of course!).
NEED SUPPORT? JUST ASK! Apple product engineers field your support questions in the Apple Customer Center at 3 pm PST. Drop by & meet us!

eWorld gets you connected too. You can send messages and files to anyone else using the service and beyond – because eWorld also provides eMail access to your friends and colleagues on the Internet.

eWorld also opens the door to a world of on-line support from Apple and a host of other companies. Technical advice, software demos, shareware – it's all there waiting for you.

Just like your Macintosh,™ eWorld is incredibly easy-to-use. To access information, you enter buildings in the bustling eWorld Town Square, from the Arts & Leisure Pavilion to the Computer Centre, you simply point and click – what could be easier?

Best of all, you can now get your own free eWorld Starter Kit, together with two free hours of introductory connection time.

To receive your copy, phone the Apple Information Centre free on 0800 127753.

Apple®

To use eWorld software, you will need a Macintosh personal computer, with system 6.0.7 version software or later, 4MB of RAM to run eWorld or 8MB to run eWorld and the eWorld Web Browser, 4MB available hard disk space and a modem running at a minimum of 2,400bps. You will be sent full details of monthly subscription and connection charges with your eWorld Starter Kit. All eWorld charges are made in US Dollars and are deducted from your nominated credit card on a monthly basis – payment by American Express, Mastercard or Visa. *©September 1995, Apple Computer, Inc. The Apple logo is a registered trademark and Apple, eWorld, the eWorld logo and Macintosh are trademarks of Apple Computer, Inc., registered in the US and other countries.*

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6200

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Pictured with optional 15" monitor & keyboard

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The Power Macintosh 6200 delivers CW blinding speed, superb multi-media facilities and great expandability - all packaged in one of Apple's classic desktop designs. The 75Mhz Power PC 603 and the level 2 cache (256k) means this Mac absolutely rips through multimedia, games and business applications with gusto.

6200/75
8/500 + CD-ROM
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WHILE STOCKS LAST!!

MAC 630

QUADRA 800 SPEED!! -IDEAL FOR OFFICE OR HOME!

Mega fast processing, loads of expansion, built-in CD-ROM drive plus the amazing option of TV viewing, makes this the multimedia computer of choice! Where else could you get Quadra 800 matching performance and this amount of multimedia flexibility and options for less than £500!?!

- 66/33Mhz 68LC040 processor - the clock speed of a Macintosh Quadra 800 - great for business, education and entertainment use!
- 4Mb of on-board RAM (Exp to a healthy 36Mb)
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- Built-in double speed CD-ROM drive
- 3 internal expansion slots ■ TV Tuner ready
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Pictured with optional 15" monitor & keyboard

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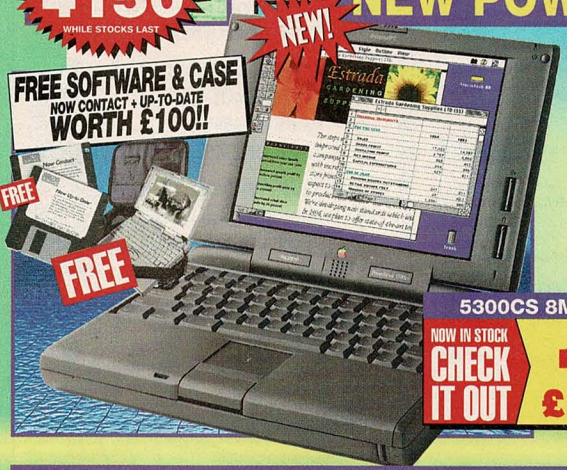

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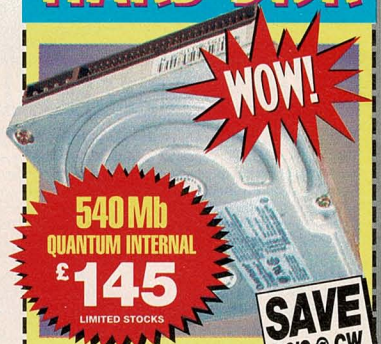

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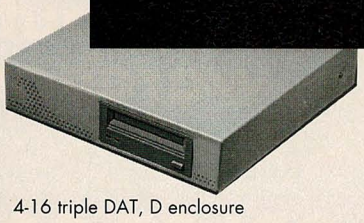

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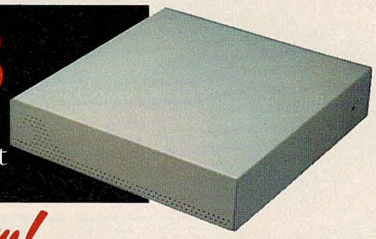

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MACFORMAT NEWS

Mac shortages tackled; the next step beyond CD-ROM; and lots of activity on the Internet. News Editor: Richard Hill.

Apple fight lack of Macs

Some of the new generation of PowerMacs are in short supply, but Apple are taking decisive action to deal with it.

Apple are pursuing plans to make sure outstanding demand for Macs is met as quickly as possible, and will resist pressure to be bought up by a larger company. The course has been firmly set after weeks of speculation on Apple's future in the face of component shortages and fierce competition from other computer and operating system makers.

Apple have recently confirmed that they have a worldwide backlog of orders for Macs worth almost one billion dollars. Apple president Michael Spindler said that the problem should be cleared by spring next year.

But Apple also announced in September that their profits for the fourth quarter of the year would be much lower than predicted because of the shortages. At a time when the computer industry is selling more than ever before, the shareholders Apple rely on for financial support want to know why there is a shortage of Macs.

The reasons for the backlog were explained in a memo by Apple vice president Frederick Forsyth, which was seen by the trade industry paper *MacWeek*. Forsyth said Apple were successfully switching their range across to PowerMacs, but had not anticipated the boom in computer sales – so there were not enough PowerMacs to go round. Apple did not compensate by making more of the older 680x0 Macs, like the Quadras, because the overall plan to move over to PowerMac meant that businesses would find their purchases got out-of-date very quickly.

'Massive transformation'

Speaking to the Reuters news agency in September, Michael Spindler said that it was more complicated than simply not predicting high enough sales for PowerMacs. 'Saying [we] couldn't figure demand – that isn't it. In part it is a massive transformation of the entire product line. When you introduce this many technologically complex transitions, it's bound that things will happen.'

The supply of Macs in the UK is not too bad. Some of the new PowerMacs with PCI (Peripheral Component Interconnect) slots are in short supply, but Apple's marketing manager, Paul Hely, says there are stockpiles of Performas ready for the Christmas rush.

The shortage is also affecting Apple's licensing of the Mac OS, which would enable more companies to make Mac-like computers. LG Electronics, a huge organisation that owns the Goldstar brand among others, is signing a deal to sell Mac-compatibles in South Korea, but other deals are being delayed.

Perversely, after weeks of criticism, rumours of takeovers and a high-up resignation over the issues behind the backlog (see story on next page), Apple's market share has increased slightly, while those of its main rivals have slipped or stayed static, according to a survey by American firm IDC. One's thing for sure – there's no shortage of customers wanting a Mac.

■ Apple determined to keep independence: see next page.

START APPEAL

START, a charity researching cures for skin diseases like eczema and psoriasis, are looking for Mac printers to help them continue their work. If you have a printer you no longer need, please call Joy Cartwright on 0181 746 8174. START are happy to provide information about their work or discuss publicity for major gifts and sponsorship.

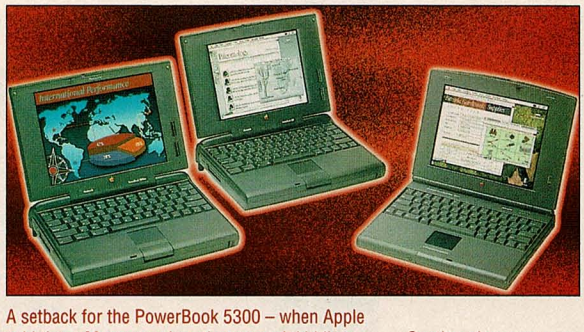
PowerBooks recalled

Apple have recalled every one of their new portable Mac PowerBook 5300s after they found that the new type of batteries they used are liable to overheat to dangerous levels – possibly even catching fire. The problem was noticed early, after only 200 of this range had been sold.

The batteries in question are lithium-ion, which were introduced because they last longer than traditional nickel-hydride batteries. Sony, who made the batteries, are looking into the situation and will produce a new version of the battery soon.

Apple have contacted all their customers with lithium batteries. If you're looking for a 5300 now, there's no danger – dealers have been supplied with older-style batteries until the lithium versions can be remodelled. You should then receive a new battery for free.

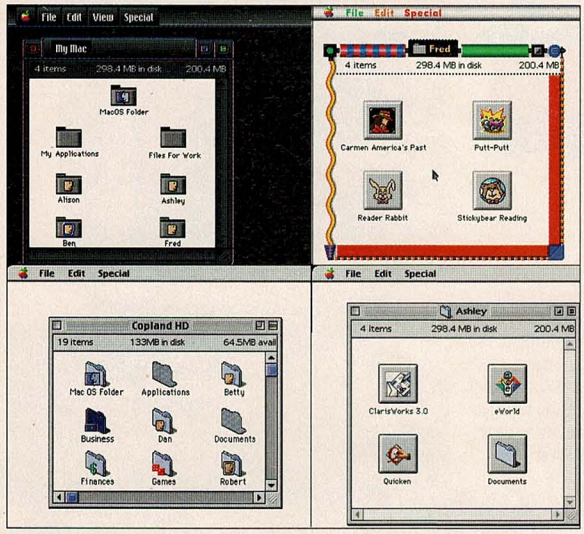
The problem does not affect any type of PowerBook other than the 5300. For more details, contact Apple on 0800 127753.



A setback for the PowerBook 5300 – when Apple said these Macs were hot, they weren't kidding.

Continued on next page

Apple determined to keep independence



Some of the new faces of the Mac OS – but will the company that created it stay independent? Apple say 'Yes'.

Apple chairman Michael Spindler says the company is not up for sale, despite external and internal pressure to give up their independence.

They are, however, looking for closer partnerships: Apple and IBM have been involved in discussions about where to go after forming a coalition with Motorola to produce the PowerPC chip used in PowerMacs and other machines. Apple chairman AC Markkula Jr has said they are trying to persuade IBM to throw its full weight behind the Mac operating system (OS). IBM have a system called OS/2, and both systems will be able to run on the new Common Hardware Reference Platform (CHRP) computers due out next year, but Apple believe OS/2 should be dropped because it hasn't been selling well.

Apple dilemma

A possible problem is that IBM want Apple to incorporate IBM program code into the next major revision of the Mac OS. This would make it easier for IBM to link Macs and CHRP computers with the supercomputers that make up most of their sales, but would delay the release of the new Mac OS.

These complex talks have led to steady rumours that IBM wanted to buy Apple outright, and indeed the two seriously discussed the possibility last year (see news, MACFORMAT 30). The benefit for Apple would be extra support for their ambitious plans.

The main issue is whether Apple can continue to successfully develop computers for business and home, a major operating system, printers, monitors and software. Few companies in the computer industry have managed to cover so many diverse areas, so should Apple concentrate on doing fewer things more effectively? Or should they allow themselves to be bought up by a larger company, which could finance their current activities?

In an interview with the *New York Times*, Spindler hinted at one option that Apple might follow: 'Crucial decisions are going to have to be made about letting go of some parts of the business, which are quite unnerving to some people, including ourselves.'

Meanwhile, Apple's Chief Financial Officer, Joseph Graziano, is to leave the company because of 'differences of opinion' with Spindler. He has been suggesting that Apple can no longer prosper as an independent company.

Adobe set sights on Web

REGISTERING OXYD

If you have reached the point in MACFORMAT 28's top shareware game *Oxyd* where you have to register to progress, you'll have noticed that the UK phone number doesn't work. Creators Dongleware say they don't have a UK partner at the moment, but you can register by sending a Eurocheque for 78 Deutschmark (about £35) to: Dongleware GmBH, Postfach 1163, D-69139 Neckargemuend, Germany. They also accept Visa and MasterCard. For more details, contact Dongleware on 00 49 6223 8740.

Adobe's latest moves in their plan to establish a new standard for the Internet have been announced. They are buying up a company with a powerful HTML design program, and have unveiled a new version of their *Acrobat* software intended for the Net. *Acrobat* is a digital publishing system that gives you professional-looking electronic documents – see last issue's cover feature.

Page View
Title: Ceneca Press Releases
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PAGEMILL
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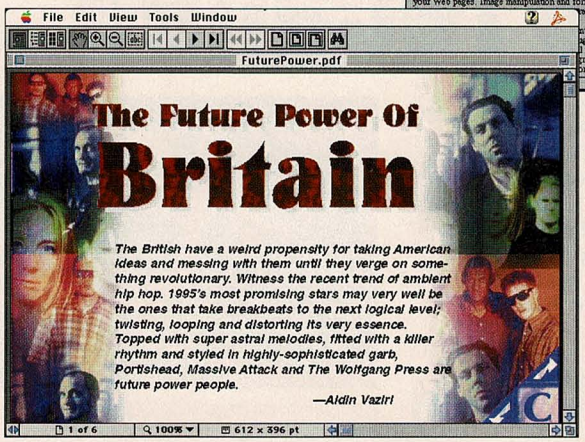
PALO ALTO, CA -- Ceneca Communications, Inc. announced its first two products, PageMill and SiteMill, which bring the ease of WYSIWYG and drag-and-drop editing to both creation and maintenance of Web Sites!
Ceneca PageMill web authoring software is easy-to-use, fast, and includes everything you need to create Web pages in one well-integrated package. Creating links is easy, and Ceneca PageMill ensures that links remain correct as you copy and paste them throughout your Web pages. Image manipulation and format conversion is completely integrated

Ceneca's *PageMill* program is set to perform a a crucial role in Adobe's plans to dominate digital publishing.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Britain
The British have a weird propensity for taking American ideas and messing with them until they verge on something revolutionary. Witness the recent trend of ambient hip hop. 1995's most promising stars may very well be the ones that take breakbeats to the next logical level; twisting, looping and distorting its very essence. Topped with super astral melodies, fitted with a killer rhythm and styled in highly-sophisticated garb, Portishead, Massive Attack and The Wolfgang Press are future power people.
—Aidin Vaziri
1 of 6
100%
612 x 396 pt

Acrobat (left) is to work more closely with *Netscape Navigator*, so you can read stunning pages on the Web.

The company being bought is Ceneca Communications. Their *PageMill* and *SiteMill* programs (see News, MACFORMAT 29) haven't even been released yet, but people within Apple have said they could do for Internet publishing what the Mac and *PageMaker* did for desktop publishing in the 1980s. *PageMill* will slot into a range of Adobe software that includes *PageMaker* and *Acrobat*, giving Adobe strong weapons in their fight to control this new market.

Amber is the codename for the next version of *Acrobat*, due next year. You'll be able to load pages from the Web one at a time – at the moment, you have to load a whole document before you can read it, which can take a long time. It will also work invisibly inside the new version of *Netscape Navigator* (see the Netscape story on page 25). For a lot of users, *Acrobat* could become the most common way of reading Web pages, replacing the current HTML.

Shape of future CD-ROM agreed

CDs will soon be a thing of the past, but an industry-wide deal means you'll still be able to use the discs you've bought on the new DVD system.

An industry agreement to develop just one CD format – the Digital Video Disk (DVD) – has been reached, which means that high density CDs containing up to 14 times more information than a current CD-ROM are now in development.

Two consortiums of firms were working on their own designs, which would have meant you'd have had to take a gamble on which one was likelier to become more popular – a situation somewhat reminiscent of the battle between VHS videotape and the superior but poorer-selling Betamax.

However, a loose grouping of computer firms, including Apple, IBM and Microsoft, had been putting pressure on the two camps to find a solution.

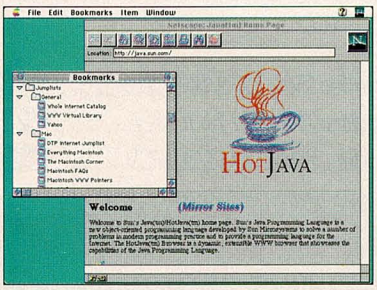
The two sides, led by Sony and Philips on one side and Toshiba on the other, have agreed to work on a standard design that you'll be able to use as a CD-ROM in your Mac or as a video-disc to watch films on. The new discs will come in double-sided or single-sided versions, which will be able to store 9.4 Gigabytes (9,400Mb) or 4.7Gb respectively. That's enough for over four hours of video on a double-sided disc. Players for the discs will be able to play your existing CDs, whether they're CD-ROMs, music CDs or Video CDs. The first systems are expected in the latter half of 1996.

Netscape usher in Web future

The new face of the World Wide Web came a step closer when an early version of the newest Netscape Web browser became available this October. The finished version should be available in the shops by this December.

Netscape Navigator 2.0 enables you to view pages written for the Web area of the Internet. It's been rewritten to boost the speed at which pages appear, and e-mail and newsgroup reading facilities have been improved.

Most significantly of all, *Netscape 2.0* will use plug-in sub-programs. As these appear, you'll be able to load *Acrobat* pages directly (see Adobe story on page 24), view animation live on Web pages with Sun's HotJava system, or watch Apple QuickTime video clips. Keep an eye out for plug-ins as they become available.



Sun's HotJava technology will enable you to watch animation on Web pages and much more, as *Netscape* becomes a live multimedia program.

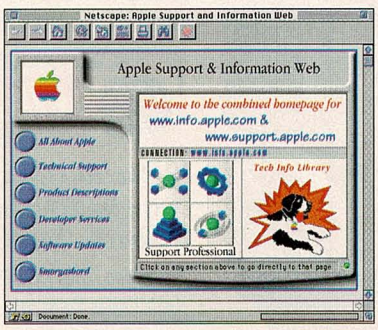
Apple get behind Net

The Internet and Apple are to become more closely intertwined. The company plan to introduce new sites on the World Wide Web area of the Net, integrate their existing sites more closely and make their on-line service eWorld a closer part of the Web.

Next year will see new sites designed for Mac owners like you, whether you use your Mac for home or business use. There'll be sites specially for designers, teachers, students and families. This will form part of the revamping of eWorld, which will have more pages on the Web as well as its exclusive pages for paying subscribers.

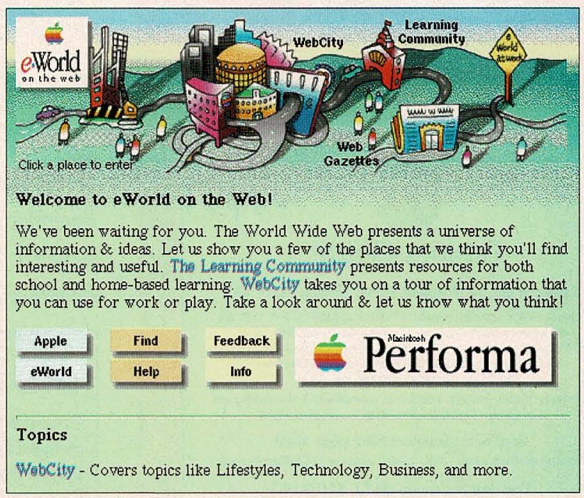
If you want to use eWorld at the moment, you need to have special software. This program will be dropped next year in favour of a system based on Internet standards like HTML (HyperText Markup Language), which is used to design Web pages. The idea is that this will make eWorld easier to use.

The creation of Apple's Web pages and responsibility for eWorld have now been brought under one roof – Apple Internet Services. If you would like a taste of what Apple have in store, early versions of two of its eWorld sites, WebCity and the Learning Community, are at **http://www.eworld.com/general/** and **http://www.eworld.com/learning/** MF



Look out for more eWorld content on the Web, plus closer ties between Apple's on-line service and their other sites.

Netscape: Cool Content!
Enjoy this bit from Tom Petty's "It's Good To Be King" (6.6 MB)
Tom Petty's home page...
Watch this Van Halen video excerpt from "Can't Stop Loving You" (4.3 MB) or go directly to the VH1 Network for more cool videos and other neat stuff!
R.E.M. has released an interactive album preview for their latest, Monster. Watch this video clip from "Strange Currencies" (5.4 MB) Find more videos on their home page!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NEW NAME FOR HSC

HSC Software, the company behind software like *Kai's Power Tools* and *Convolver*, are changing their name to MetaTools. 'Meta' is Greek for 'the next level', company chairman John Wilczak commented modestly.

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WHAT'S NEW

New versions of *FreeHand* and *Kai's Power Tools*, plus a heavily revamped Ray Dream 3D package. And is the *Monty Python* CD-ROM a *Complete Waste of Time?* Compiled by Richard Hill.

Ray Dream Studio

JARGON BUSTER

In 3D graphics programs, rendering is the process of adding solid textures and lighting to the wireframe models you've made.

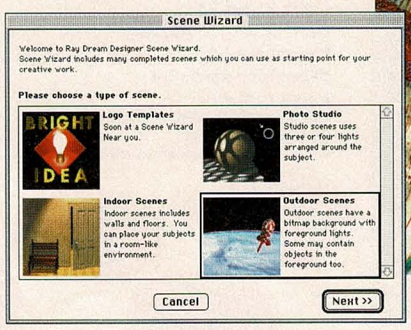
The strength of the popular *Ray Dream Designer* 3D program is boosted with the arrival of *Ray Dream Studio*, a collection of programs for 3D rendering and animation. Due out next month, the package adds *Ray Dream Animator, Dream Models* and *Extensions Portfolio* to version 4 of *Designer*. All the programs have been merged together into one whole.

Studio enables you to create and render 3D models. You can then build up frames of scenes to create sophisticated animations. There are over 500 pre-rendered models – 3D forms you can simply drag and drop into one of your scenes – and more than 500 textures you can drag onto any of your wire frame models.

You also get a set of Extensions, small sub-programs you can add to *Studio* if you wish, and software that enables you to create your own.

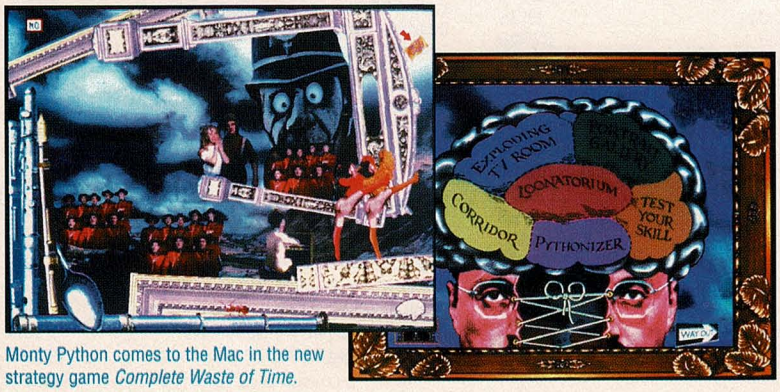
A new help facility called the Scene Wizard offers advice on how to use lighting and compose scenes to look as good as possible, and gives you setups you can experiment with to see what works and what doesn't.

■ Price: £441. ■ Out: November. ■ Requires: any colour Mac, 8Mb of free RAM minimum (11Mb of RAM recommended), System 7 and 40Mb of hard disk space. ■ For more details contact Principal on 01706 832000.


Scene Wizard
Welcome to Ray Dream Designer Scene Wizard.
Scene Wizard includes many completed scenes which you can use as starting point for your creative work.
Please choose a type of scene.
BRIGHT IDEA
Logo Templates
Soon at a Scene Wizard Near you.
Photo Studio
Studio scenes uses three or four lights arranged around the subject.
Indoor Scenes
Indoor scenes includes walls and floors. You can place your subjects in a room-like environment.
Outdoor Scenes
Outdoor scenes have a bitmap background with foreground lights. Some may contain objects in the foreground too.
Cancel
Next >>

Studio's Scene Wizard feature offers tips on the best way to get your 3D designs looking great.

Complete Waste of Time



Monty Python comes to the Mac in the new strategy game *Complete Waste of Time.*

They're asking for it with a title like that, but games firm 7th Level have no fear. They want to make you laugh with the *Monty Python* CD-ROM. *Complete Waste of Time* challenges you to discover the Secret to Intergalactic Success, with a combination of mind-bending strategy and mindless farting. Terry Gilliam style animation is very much to the fore and there are video sketches from the original TV series, including 'The Dead Parrot' and 'Nudge Nudge'. The package is rounded out with a selection of icons and sound effects you can use to Pythonise your Desktop.

■ Price: £39.99. ■ Out: now. ■ Requires: LC475, 8Mb of RAM, 256-colour monitor, CD-ROM drive (double-speed recommended) ■ For more information contact 7th Level on 01932 355666.

NEW FOR THE MAC

Kai's Power Tools 3

Powerful new image processing tools have been added to *Kai's Power Tools 3*, the latest version of the plug-in for *Photoshop* and other programs that support Adobe's plug-in system (including *Color It!)*. It's the latest graphics program from the renamed company, MetaTools (see MACFORMAT News, page 23).

Components within *KPT 3* include Lens f/x, a sophisticated preview device with which you adjust settings like blur, smudge and sharpen, then drag the lens to any part of your image to see immediately how it's affected. You can use Spheroid Designer to render up to 1,000 3D spheres at once with effects like transparency and colouring, while Interform enables you to mix textures to create brand new effects.

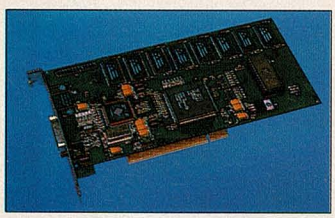
KPT 3 costs £175 and is out now. For more details or to order your copy, contact Principal, on 01706 832000.

EAsycolor 1600/16

EA Research are releasing the first in a line of graphics cards for new PowerMacs that use PCI (Peripheral Component Interconnect) slots. PCI will replace NuBus over time to become the standard card system for expanding your Mac's capabilities. It should mean you get more choice and faster systems at lower prices.

The EAsycolor 1600/16 is a high-powered graphics accelerator that gives you increased screen resolutions and more colours – 1,152 x 870 pixels in 16.7 million colours or 1,920 x 1,080 pixels in 256 colours, for example. The 1600/16 also takes over control of drawing the cursor, leaving your Mac to concentrate purely on doing the calculations to change the image you're working on.

The EAsycolor 1600/16 costs £880 and is available now. For more details contact EA Research on 01753 252131.



The EAsycolor graphics card is one of a new set of high power PCI cards for PowerMac 7200s, 7500s, 8500s and 9500s.

Wild Board Games

After *Wild Cards* comes *Wild Board Games*, the second of Corel's products to attempt to drag traditional games kicking and screaming onto your Mac. Designed for young children, *Board Games* uses animated characters to teach the rules of classic pastimes like Chess, Draughts, Reversi and that good ol' favourite, Snakes and Ladders.

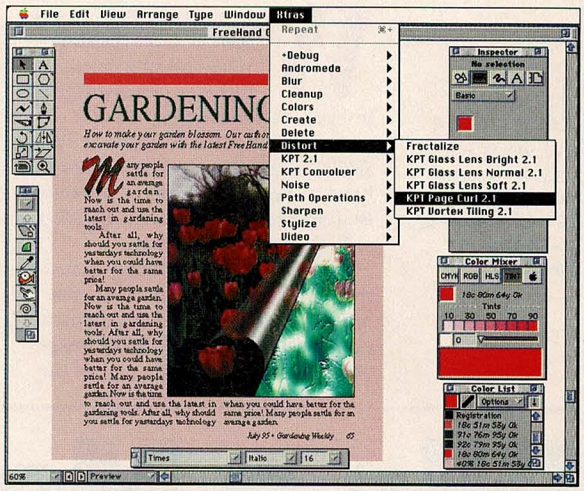
There are also extra things for your kid to do, like a painting program, a slide puzzle and a mannequin-dressing game. *Wild Board Games* is out now and costs around £24 – its predecessor was reviewed in MACFORMAT and received a rating of 83%. For more details contact Channel Market Makers on 01703 814142.

FreeHand 5.5

The latest version of Macromedia's *FreeHand* bridges the gap between drawing programs like *Illustrator*, image editing software like *Photoshop* and desktop publishers such as *QuarkXPress*. Macromedia also claim *FreeHand 5.5* is up to 25% faster than the previous version, 5.0.

The program's biggest new feature is its ability to use plug-in sub-programs that are designed for *Photoshop*. This means you can get extra software that enables you to add special effects or scan an image directly into *FreeHand*, for example. A set of *Kai's Power Tools* plug-ins is included on the CD-ROM for you to try out, and it also provides you with an additional 500 fonts and 10,000 clip art images.

The new version of *FreeHand* can also save your work as a PDF (Portable Document Format) file, enabling you to create digitally published documents, and you can load in PDF files to work on. More help for electronic designers comes with improved picture output, which is designed to give you sharper images to place in pages for the World Wide Web. *FreeHand* is definitely becoming more Net-aware.



The latest *FreeHand* gives you the ability to use *Photoshop* plug-ins with the program.

■ Price: £529, upgrades from earlier versions from £77. ■ Out: now. ■ Requires: IIci or better, System 6 or later (System 7 recommended), 5Mb of RAM (8Mb recommended), 25Mb of hard disk space. ■ For more details contact Macromedia on 01344 761111.

PDF REVEALED

For more information on Adobe's PDF file format, see MACFORMAT 30's cover feature on digital publishing.

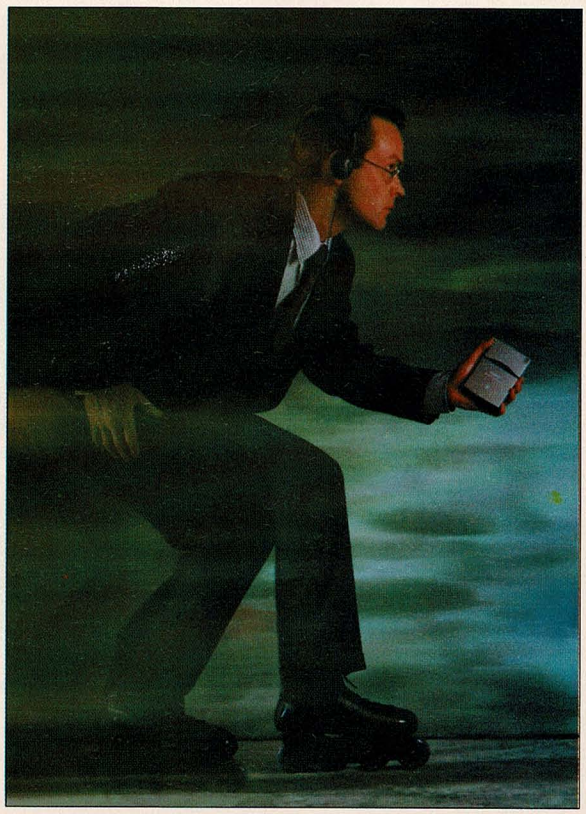
MD Data

Sony's addition to the wealth of storage options for your Mac is MD Data. It's a device that uses discs based on MiniDisc technology. Sony have been selling players for the audio MiniDisc for three years, but it's failed to capture the imagination of the hi-fi world. Could the combination of music on the move and computer data storage revive the MiniDisc's fortunes?

The MDH-10, the first MD Data drive, is priced at £586. You can connect it to your Mac or portable PowerBook, and you can play music MiniDiscs too – headphones and a remote control for hi-fi listening are included, along with a rechargeable battery.

The discs themselves are 2.5 inches in diameter and cost £10 each. Looking like small CDs, the discs are recordable and can store up to 140Mb each – a hundred times the amount a Mac floppy disk can contain.

■ Price: £586. ■ Out: now. ■ For more details contact Sony on 0181 760 0500.



The MD Data drive offers convenient and powerful data storage – and you can listen to music on it! Could MiniDisc technology be about to catch on?

ScanWizard

SCANNING MADE SIMPLE

Microtek's SC Lee spoke to MACFORMAT about the firm's new approach to scanning back in issue 24's MacroScope.

We're getting further and further from the days when all that scanners did was simply digitise images. Visioneer's PaperPort brought new ideas to scanner design (MACFORMAT 28), and now Microtek have come up with a new program that makes scanning with a traditional flatbed machine easier.

ScanWizard gives you easy access to the image editing features you use most while you scan. After doing a preview scan of your printed image, you can zoom in on any part of the screen image, use sharpening and blurring filters, and even automatically remove moiré patterns – the unattractive effects you can get as a result of the screen used on the printed image.

The program also enables you to save settings each time you scan one type of image, and you can do batch scans with different settings on each image. *ScanWizard* will be bundled with Microtek scanners from now on, but existing owners can also get hold of it for £58.

■ **Price: £58.** ■ **Out: now.**

If you've got a Microtek scanner, you can take advantage of the company's new image editing and scanning software – *ScanWizard*.

■ **Requires: Mac II (PowerPC native), 8Mb of RAM, System 7 or later and a Microtek scanner.**
■ **For more details contact Computers Unlimited on 0181 200 8282.**

Win a Mac!

MAC PERFORMAS

For more details on the Performa 5300 and the rest of the Performa range, contact Apple on 0800 127753.

Last issue we showed you how you could create your own World Wide Web pages, and included the software to do it with on the Cover CD. Try your hand at digital publishing and you could win a brand new 5300 – the latest of Apple's Performa range. With 16Mb of memory, a 1,200Mb hard drive, a 603e PowerPC chip for running both PowerMac and Mac software, and a quad-speed CD-ROM, this Mac has got it all.

The Performa 5300 also comes with a 14,400 baud modem and fax software, to get you onto the Internet. The TV tuner and card enable you to watch television on the 15-inch monitor, and you can create and edit QuickTime movies with the supplied *Avid Videoshop* software. An MPEG card also provides excellent full-screen video, and you get four MPEG CD-ROMs, plus several other best-selling CDs and a copy of *ClarisWorks*. This Mac would cost you £2,375 in the shops, but we have one up for grabs in our competition, courtesy of Apple Computer UK.

MPEG

MPEG is a video standard used in Video CDs, with a wide variety of hit films, music videos and customised CD-ROMs available.

You could win all this and more! Well, not Tia Carrere, but a very classy Performa 5300...

What you have to do...

To win this Performa, you need to create your own Web magazine and send it in to us. We'll put the winner's magazine and the best of the rest on FutureNet, our own Web site, and they'll appear in MACFORMAT.

The magazine can be on any subject you like. Something to do with the Mac, like design, games or Mac hints and tips perhaps. Or a guide to something you know a lot about – music or art maybe? Or just tell us about yourself. Our Web pages get thousands of visits, so you need to do something that people will want to read.

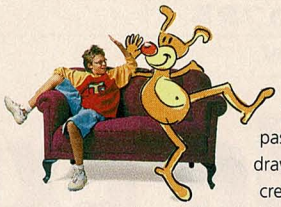
You can use the software supplied on MACFORMAT 30's CD-ROM to create your Web page, or, if you didn't get the CD-ROM edition, HTML editing software is available on the Net (we've put up links on the MACFORMAT site), or through any good shareware library, or just use a word processor. Any text file must be a basic Text file that *SimpleText* can read, and all your images must be in GIF or JPEG format so that Web browsers can display them. We recommend the relative URL method for putting images and page links into your HTML documents – see our DIY Web tutorial in MACFORMAT 30.

If we think your magazine is the most interesting, entertaining and well-produced of all those we see, you'll win yourself a Macintosh Performa 5300 and get your work on the Web. Have a careful read of our guidelines and rules and get your Web magazine (on one floppy disk only, please) to us by Friday 24 November. Send your entries to: 'The enormous Mac compo', MACFORMAT, 30 Monmouth Street, Bath BA1 2BW. **MF**

THE RULES

■ Entries must be submitted on a single Mac-compatible floppy disk. Please write your name and address clearly on the floppy disk label. No e-mail entries will be accepted.
■ We won't be able to return your floppy disk, so ensure you keep a copy of your entry.
■ Your magazine can consist of several pages or just one. Multi-page productions should have links between pages. You can put in links to other sites that are connected with your chosen subject, but make sure the addresses are correct.
■ Your Web pages, including any images and icons, must be all your own work: we will not have permission to put any work created by other people on FutureNet.
■ Your entry must be original, not something you've created that is already on the Web.
■ Employees of Apple Computer, Future Publishing or associated companies, and their families, are not eligible to enter. The editor's decision is final, there is no cash alternative, and no correspondence will be entered into. Please state if you don't want your name added to a mailing list.

Dad – sorry, sales and marketing communications manager Bruce Corfield – got fed up with the same old presentations. Now he uses the ArtPad to spice up his business proposals with hand drawn illustrations, making points much more memorably and effectively than any hackneyed clip art could (and retouching family photos is great fun too!).



You name a comic and Jon'll tell you who did the illustration. It's his passion – especially since he started drawing his own. With the ArtPad he's creating characters, dialogue – entire stories. His friends think they're well wicked. His teachers? Well, so long as he doesn't bring them into class...

The new ArtPad II draws the family together.

Anna's solved her biggest problem – what to give her string of boyfriends for their birthdays. She designs way-out T-shirts on her ArtPad especially for them, and gets them printed down at the instant printers. It's excellent for writing love letters on, too – especially when words aren't enough.

Supermum, alias Patsy, finds spreadsheets really useful for keeping track of family finances – she loves the ArtPad's natural way of working. The cordless stylus makes light work of balancing the budget. Not to mention putting together the shopping list – typing is so boring!

Call the ArtPad II InfoLine: 01703 814939

ArtPad II is the universal input tool for every computer. It works with every major application, and it's as easy to use as paper, pencils and an eraser. It's batteryless, the stylus is really light and the tip is pressure sensitive. Make sure your family's not missing out – just give us a call and we'll send you details and tell you where you can try out an ArtPad II for yourself.

ArtPad II – it's the two-way family favourite.

WACOM

Putting technology in its place

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Apple Expo '95

It's Expo time again! As the biggest Mac exhibition in the UK takes off this November, Lindsay Bruce and Richard Hill present the essential companion guide.

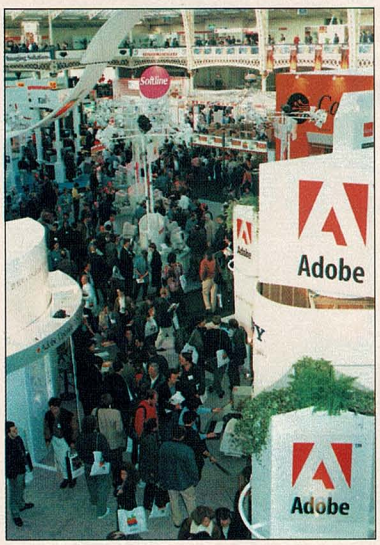
THE MACFORMAT ROADSHOW

The Apple Expo is the biggest UK Mac event of the year, so Britain's best-selling Macintosh magazine just has to be there – and that's us! Come and see us on stand F44 and take advantage of our exclusive Apple Expo subscription offer.

The greatest Mac show of the year is back at London's Olympia from Wednesday 8 to Saturday 11 November. This year's exhibition promises to be the busiest yet, with more Mac hardware and software than ever.

Apple Expo is an important opportunity for Apple and third party developers to show off new products to Joe Public, but what's here for the average Mac user? Lots! As well as the exhibition stands hosted by dozens of companies, there are training workshops from MacUniversity and a busy seminar schedule. Subjects here include education, design, beginners, multimedia and the Internet.

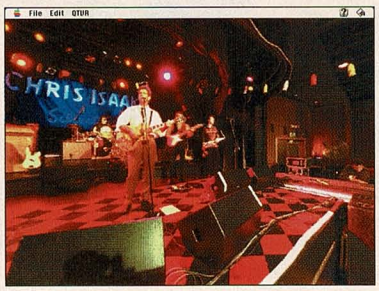
Apple vice president David Nagel and technology guru Frank Casanova will be at the show to reveal the future of the Mac in Apple Expo's first ever conference sessions, where subjects like the office of the future and Macs in education will also be discussed.



Last year's Expo drew the punters in – come and see what's new this year!

Learn at Expo

You can drop into the new Internet Surfing Centre, try the Net for free and get coaching from the pro's. The ubiquitous MacUniversity will be giving tips for new users as well as experienced surfers – get your free ticket for a one-hour session at the Centre.



Find out the latest news on the virtual reality system QuickTime VR at Apple's stand.

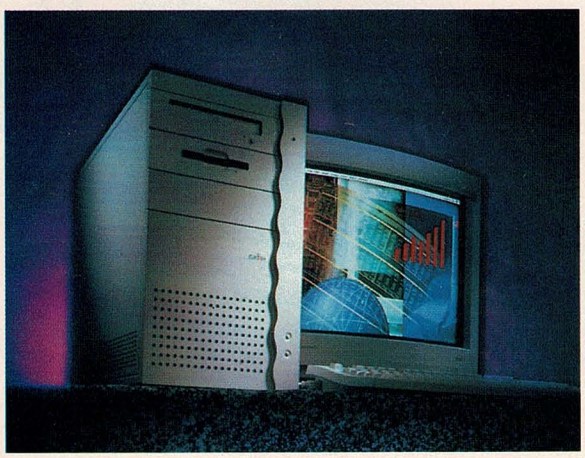
Also making its debut this year is the Multimedia Arena, where you can find out exactly what multimedia is and how it can help your business to publish CD brochures and train staff more effectively. Production companies will be on hand to show you how to get started yourself.

The popular Pre-Press Forum returns, giving you the chance to see the production process behind creating a book or magazine and see the latest publishing systems.

MACFORMAT will be there, of course, and we look forward to meeting you! You can also see the latest ideas to spring from the Apple development team at their stand, like the QuickTime VR and QuickDraw 3D software that's revolutionising 3D on the Mac.

With such a big show, it's difficult to get round and see everything in one day, so here's a quick round-up of the products to look out for...

PowerMacs and friends



Radius are the first firm to have Mac-compatible computers on sale in the UK – take a look.

Apple will of course be proudly showing off their new PowerMacs – the 7200, 7500, and 8500 series. These machines feature the PCI (Peripheral Component Interconnect) slots that are bound to make such a big impact in the Mac market.

The Performa 630, 5200 and 6200 for home users will also be on show, along with the all-singing, all-dancing Performa 5300. This Mac shows the best of the new technologies that make the Mac such an essential for multimedia, with a CD-ROM drive, a modem and superb TV-quality MPEG video built-in.

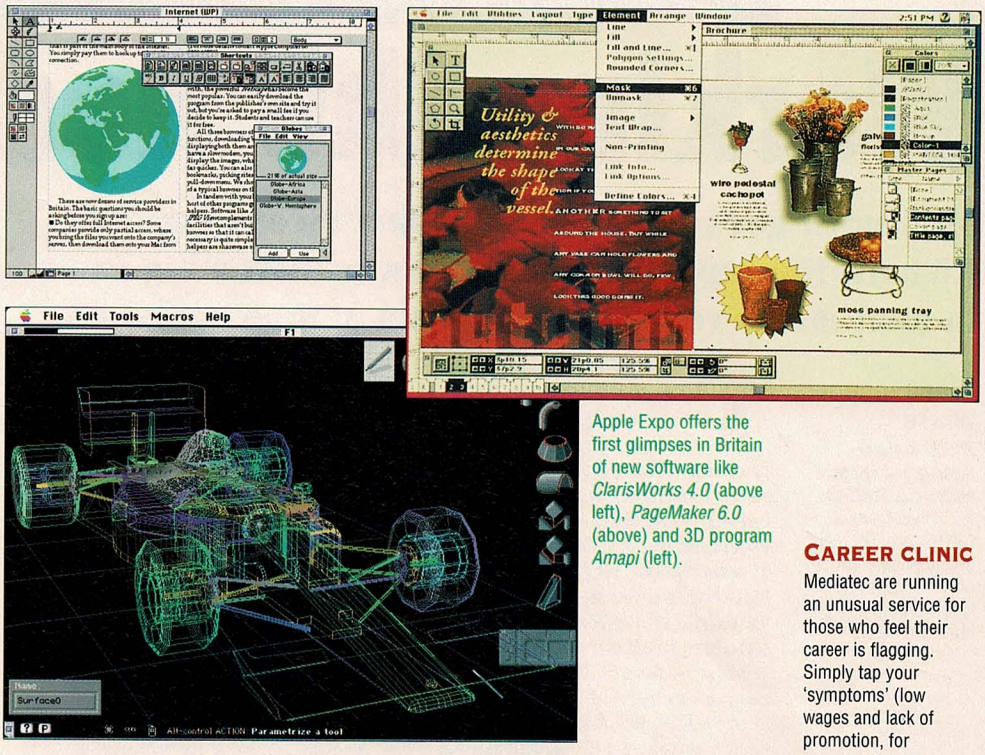
The Genesis MP is a multi-processor powerhouse specially for top-level professional designers.

The Genesis MP makes its first UK appearance at the Aptec stand. This four-processor PowerMac-compatible monster from DayStar will be flexing its digital muscles with some impressive graphics and animation demos. It's designed to cope with the most exacting demands of publishing firms and video studios – if you won the lottery recently, this is the one to buy! Watch out also for Radius, who will be showing off their 81/110 series – the first Mac-compatibles to go on sale in Britain. They're based largely on the Apple PowerMac 8100/110 but with Radius' own graphics expertise stuffed in there too.

Software on show

PageMaker 6.0 will be on show to the British public for the first time at this year's Apple Expo. The page layout package heads up an impressive array of graphics and multimedia software on display at the Adobe stand. Look out for a review of *PageMaker 6.0* in MACFORMAT next issue. *xRes 1.5* from CGS Computerbild will also be making its debut, as will *PhotoFix 3.0* from Linographic. Will Adobe's *Photoshop* be able to fend off these newcomers? We wait with bated breath.

ClarisWorks 4.0 will be on show, offering modules for word processing, spreadsheets, databases and graphics. The word processor now has an HTML (HyperText Markup Language) translator for creating pages to go on the Internet's World Wide Web area – see our review on page 90 this issue. *BeyondPress* is a new XTension, or subprogram, which converts *QuarkXPress* documents into HTML pages. You'll see it and other new XTensions strutting their stuff on the XChange International stand.


Internet (WP)
File Edit Tools Macros Help
Utility & aesthetics determine the shape of the vessel.
wire pedestal cachepot
moss panning tray

Apple Expo offers the first glimpses in Britain of new software like *ClarisWorks 4.0* (above left), *PageMaker 6.0* (above) and 3D program *Amapi* (left).

QuickDraw programs

Principal Distribution will be presenting *UniQuorn*, the first page layout program to use QuickDraw GX – Apple's new font and graphics handling system, which enables you to produce impressive effects easily if you have System 7.5. And desktop publishing meets illustration in Macromedia's *FreeHand 5.5* (see What's New on page 29). They will be demonstrating some of the program's new features, and showing the exciting *Extreme 3D*, an all-in-one modelling, rendering, animation and post-production package for the serious graphics artist. Other 3D programs at the Expo will include *3D World*, a new PowerMac design package from Blackberry Computers. It's a £120 program that offers QuickDraw 3D power to everyone from home Mac users to professional designers. And at the CGS stand, you'll also be able to try out their innovative modeller *Amapi 2.5*, with a new integrated render option.

CAREER CLINIC

Mediatec are running an unusual service for those who feel their career is flagging. Simply tap your 'symptoms' (low wages and lack of promotion, for example) into the computer and it will give you its diagnosis. Mediatec aim to show that professional recruitment can be fun.

Hardware galore

There will be plenty of fun new Mac gadgets to boggle at, but make sure you check out the FotoFUN! mini dye-sublimation printer from Fargo Electronics. This tiny low cost printer can produce images with over 16 million colours, at sizes of up to 6 inches by 4 inches (postcard size, if you must know). An optional add-on even enables you to print your own mugs – turn to page 94 for a full review.

Photography will be going digital with new digital cameras from Kodak and Canon on display at the John Blishen stand. After taking pictures with a digital camera, you can have them placed on a Photo CD disc to use with your Mac, saving the bother of having to scan in a printed photo.

Wacom will be displaying their revamped and lower-priced range of digitising tablets, comprising the UltraPad series and the ArtPad II. Also on show will be Wacom's UltraPen Eraser, which is claimed to be the world's first erasing computer pen. The Smart Writeboard from Focasel is a large-scale board for presentations – an electronic version of the good old giant pad and marker pen. Whatever you draw on the Writeboard goes into your Mac – then you can print or e-mail the information in the normal way.

Check out the latest gear: Wacom's UltraPad drawing tablets (far left), the FotoFUN! printer (left) and Lexmark's new colour laser printer (above).

Finally, Lexmark will be showing off their new range of top-quality laser printers, including their first ever colour model, the Optra C. They reckon the black-and-white Optra range is now a third faster than before, and offers resolutions of up to 1,200 dots per inch. Why not come along and find out for yourself? **MF**

EXPO HOTLINE

For more details on this year's Apple Expo, call the Expo Hotline on 0181 984 7711.

MACROSCOPE

Working the Red shift

MACFORMAT goes to Russia in a MacroScope special! Richard Hill reports from Moscow on how a big name in multimedia relies on the cream of Russian talent.

WINGS

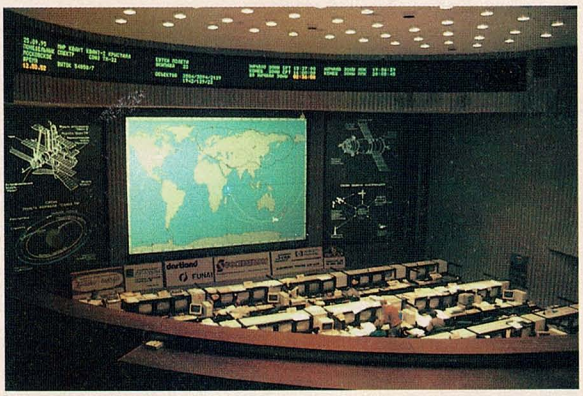
Wings: Korea to Vietnam and *Wings: Midway to Hiroshima* are both out now at £39.99 each. For more details contact Astrion on 0181 202 0011 – look for reviews in MACFORMAT soon.

The revolution is over – long live the revolution. As the century draws to a close, the memory of one of its greatest social experiments is fading away, overwhelmed by an outburst of activity. The view of Moscow is dominated by industrial cranes as Russia redefines itself once again.

Moscow doesn't have roads – it has continents with road signs planted at the edges. Boulevards are made epic with monuments to the Soviet era, space age statues promising a glorious future that never came.

But the otherness of the place only emphasises the universality of the people. After decades of isolation, the siege is ended and the twin armies of Western culture and Far Eastern electronics are surging in. Giant billboards (they have to be huge to avoid being swallowed by their surroundings) tempt you with video recorders you can use to tape American films or domestic game shows.

As the economy awakes, the Russian people are having to adjust rapidly, using their skills in new ways to make a living. Some years ago, Nick Maris came to Russia to shake hands on some shipping deals, but he soon saw what could be achieved here. Now Maris Multimedia enables him to exercise his passion for knowledge and communicating. Programs like *How Animals Move* and the *Wings* series for The Discovery Channel, along with the company's hit astronomy spectacular *Redshift*, were all made possible by the talent of the Russian people, which was just waiting to be set free.



The Spaceflight Centre tracks the progress of the Mir space station. Their knowledge proves invaluable for Maris projects.

The space programme

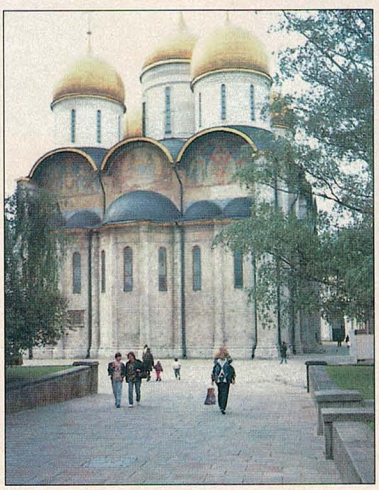
One key element made it possible to create multimedia here. The Russian space programme has given rise to an advanced centre of technology in Kaliningrad, half an hour's drive from the centre of Moscow. The Spaceflight Control Centre with the famous mission control room is based here, along with other firms that make parts for the machinery necessary for the space drive. That means plenty of people with a solid technical background, as is evident from the sleek airplane renderings of *Wings* and, particularly, the realistic space travel of *Redshift*.

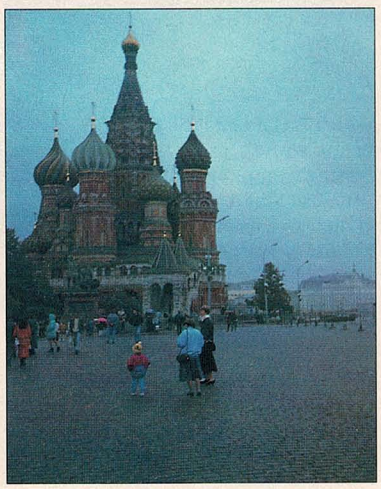
'The first group of programmers we employed came directly from mission control,' says Nick, 'and we work with the Spaceflight Centre, especially on astronomical algorithms and testing for accuracy. They provide us with data on spacecraft – they have their own large computers for accurate determination of planetary and moon positions, and we have used those computers to test *Redshift*, to see how accurate it is.'

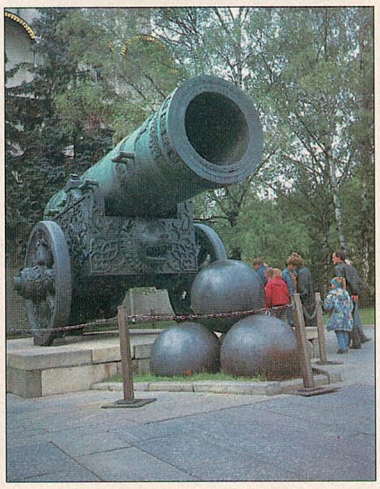
The Russian Maris studios use Macintosh computers imported from Britain – an English teacher is on hand if anyone needs lessons.

East meets West

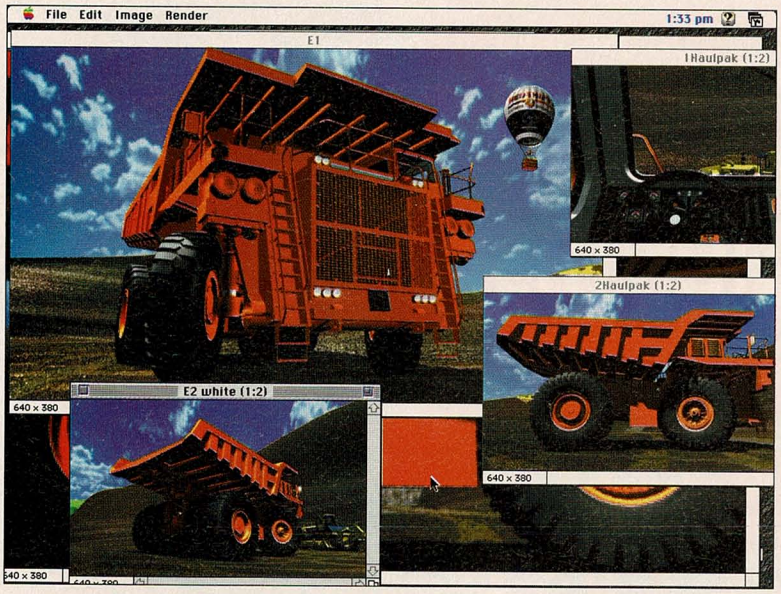
Nick found that setting up Maris Multimedia in Russia was not what he might have expected. 'There is a view that cultures are isolated islands and you land on them like an explorer – then you get to meet the natives and







With a proud past symbolised in places like the Kremlin, Russia now looks to what should be a prosperous future.



Each of these early pictures from *Truckology* takes up to two hours to render once the model is made.

they get to meet you. It isn't really like that, although that's the expectation I came here with. For example, in terms of graphic design this is a nation long isolated from the mainstream, and I didn't expect we would find graphic artists that could produce material in the style of the West.

'What I found was that they're Westerners just like us – "worlders" is a more realistic expression now, I suppose. And they have no difficulty speaking the same design language that a guy in California or London speaks. It's not that they don't bring some of their own cultural traditions to it, but the language is immediately understandable.

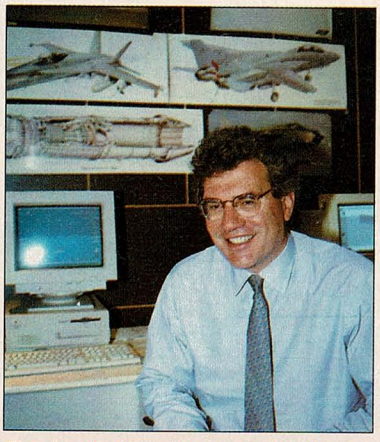
'So that has not been the difficulty in working with the people here. In fact it's been one of the delights, seeing how interesting and understandable the things they bring to the table are. The difficulties have tended to reside completely outside of multimedia – the bureaucracy of setting up the company and getting very simple things done. If you want heating, for example, there are six special licences you have to get.'

With the red tape now cleared away, the Maris firm is prospering, with over 80 employees in Moscow and Kaliningrad and more set to join. With a revamped *Redshift 2* ready for launch, work is now progressing on a spin-off. Meanwhile, *Truckology* is a multimedia Tonka toy that cannily plays on children's fascination with industrial vehicles. And the *Wings* series, set to extend to five titles, is being used to explore the potential of immersing yourself in 3D environments.

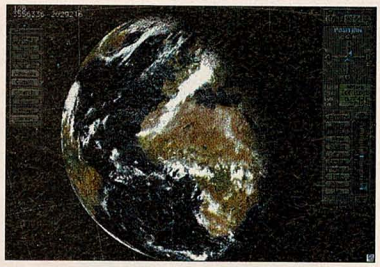
Nick Maris: 'I don't think Russians have any problem doing it for themselves.'

Problems still remain in this new world. Some of the people thrive, while others struggle; the Russian bear is waking with a sore head. Yet computer companies like Apple are over here selling machines to businesses – and one day there could be a healthy home market. 'There's a huge gap between average earnings and even the lowest-priced computer, which will make the process a slow one,' says Nick. 'But Russians are computer literate and many schools do have computers – most often Russian-made machines. They tend not to be multimedia machines yet, but it does mean that most kids receive an early exposure to computers, and they are computer literate – they read the magazines and there are programmes on TV about computers.'

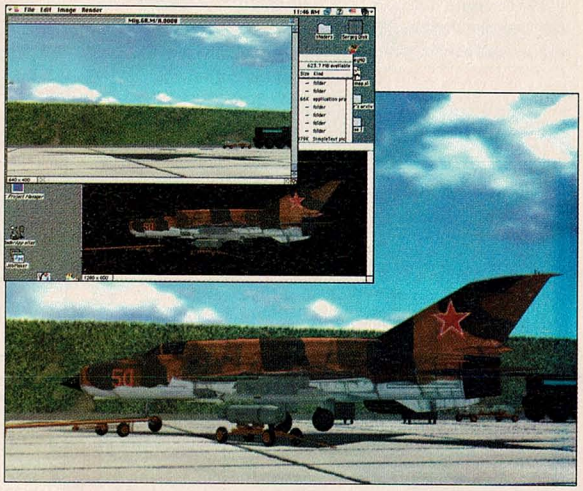
But can Russian industry, used for so long to a captive market and little competition, survive in a changing world? Countries in the West have enough trouble coping. But spending time at Maris, it soon dawns on you that this is more a Russian company than a Western one. This is where ideas are born and the product is made; this is where it counts. 'I view Maris as a Russian company,' says Nick Maris. 'By far the greatest number of employees and managers are Russians. I don't think Russians have any problem doing it for themselves, although we did need a certain injection of Californian attitudes to reach the US market, and the Russians will have to find that independently if they're going to sell in the States. And if you don't sell in the States, it's difficult to be in the CD-ROM business on any scale.' **MF**



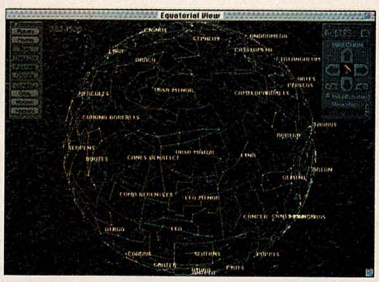
'There is a view that cultures are isolated islands,' says Nick Maris, 'but it isn't really like that.'



They may be sold in the West, but popular programs like *Redshift* are actually produced in the East, deep in the heart of Russia.



Wings creates virtual landscapes to explore. Each picture has two parts: the background and the object itself. Interestingly, the shadow is done as part of the backdrop.



The data used in *Redshift 2* is calculated by Maris but cross-checked against the findings of the Russian space programme.

The latest version of *Redshift*, Maris's successful multimedia astronomy program, now includes animations that explain the basic principles.

NEW GH 'PLUS-2' PACKS WITH EXTRA VALUE SOFTWARE NOW AVAILABLE - FREE!!!

68040 MACS

Apple Authorised Reseller & Service Provider

NEW GH 'PLUS-2' PACKS WITH EXTRA VALUE SOFTWARE NOW AVAILABLE - FREE!!!

POWERMACS

PERFORMA 630s FROM...

ONLY... £499 (£586.33 inc. VAT)

OR JUST... £3.95 PER WEEK (When Spending Over £750+)

ALL GH Performa 630 Bundles are supplied with... System Software, At Ease, Claris Works, Manuals, Mouse, all Connecting Cables etc and options for Apple 14" or 15" Colour Monitors and Apple Design Keyboard etc.

NEW... IBM PC Compatible 630 includes a 486 DOS Card operating at 66MHz with MS DOS Software and now Windows FREE too!
(Please note - 630s with DOS cards can't utilise the MPEG expansion card)

JUST 10% DEPOSIT THEN...

PAY NOTHING FOR THE NEXT 5 MONTHS! * see below

PERSONAL CALLERS TO OUR STORE CAN TAKE ADVANTAGE OF OUR DEFERRED PAYMENT PLAN* WHILST BUSINESSES ARE OFFERED A GH FINANCE SCHEME TOO*

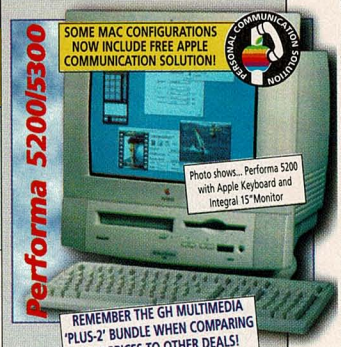
0% PAYMENT PLAN FOR PERSONAL CALLERS

5200s FROM...

£1129 (£1326.58 inc. VAT)

OR JUST... £8.93 PER WEEK (When Spending Over £750+)

All our Performa 5200's & 5300'S are supplied with... System Software, At Ease, Claris Works, Manuals, Mouse, Connecting Cables, Apple Design Keyboard options etc.


SOME MAC CONFIGURATIONS NOW INCLUDE FREE APPLE COMMUNICATION SOLUTION!
PERSONAL COMMUNICATION SOLUTION
Performa 5200/5300
Photo shows... Performa 5200 with Apple Keyboard and Integral 15"Monitor

REMEMBER THE GH MULTIMEDIA 'PLUS-2' BUNDLE WHEN COMPARING OUR PRICES TO OTHER DEALS!

STANDARD PERFORMA 630 SYSTEMS & SOFTWARE

Superfast 66/33MHz 68LC040 CPUs! Some feature built in 'Video in TV Tuner' which can input video from VCRs etc. and cut & paste between the two, plus... you can watch TV in a window on your Mac. And... there's an IBM PC Compatible Model too!

RAM	HD	Built-In	Monitor	CD	Keyboard	Price
4Mb	500Mb	✘	✘	✘	✘	£499 (£586)
4Mb	500Mb	✘	14" Performa Plus	✘	✔	£797 (£936)
8Mb	500Mb	✘	15" MultiScan	✔	✔	£977 (£1148)
12Mb	500Mb	DOS	15" MultiScan	✔	✔	£1429 (£1679)

PERFORMA 630 'PLUS-2' MULTIMEDIA BUNDLE

When you buy a 630 Multimedia 'PLUS-2' you are also...

FREE MULTIMEDIA SOFTWARE

SUPPLIED WITH... ClickArt, eWorld, Hypercard Player, MacGallery, Mavis Beacon, Millie's Maths House, Performa 7.5 System Software, PC Exchange, Spin Doctor, SuperMaze Wars and Thinkin' Things 2 PLUS... ASTERIX LANGUAGE, CONCERTWARE, DORLING KINDERSLEY "The Way Things Work", EA 3D ATLAS, GROLIER MULTIMEDIA ENCYCLOPAEDIA, MAKING MUSIC, MYST, REDNEX, ROCK-RAP-ROLL, SNOOPY and DAEDELUS ENCOUNTER...ALL CD ROMs!!!

PERFORMA 630 'PLUS-2' MULTIMEDIA SYSTEMS...

RAM	HD	Built-In	Monitor	CD	Keyboard	Price
8Mb	500Mb	✘	✘	✔	✘	£729 (£857)
8Mb	500Mb	✘	15" MultiScan	✔	✔	£1099 (£1291)

NEW... FREE GH SOFTWARE 'PLUS-2' PACKS

Look on this advert for our NEW...MULTIMEDIA 'PLUS-2' and see just how much you get from GH FREE!

'PLUS-2' PACKS COME WITH...
ClickArt, eWorld, Hypercard Player, MacGallery, Mavis Beacon, Millie's Maths House, Performa 7.5 System, PC Exchange, Spin Doctor, SuperMaze Wars and Thinkin' Things 2
PLUS... ASTERIX LANGUAGE, CONCERTWARE, DORLING KINDERSLEY "The Way Things Work", EA 3D ATLAS, GROLIER ENCYCLOPAEDIA, MAKING MUSIC, REDNEX, ROCK-RAP-ROLL, SNOOPY MYST and DAEDELUS ENCOUNTER...
ALL CD ROMs!!!

MACS WITH TV OPTION ALSO COME WITH...
AVID VIDEO SHOP & APPLE VIDEO PLAYER

Photo shows... SAMPLES OF FREE SOFTWARE included with GH MACS on these pages. NB. Some titles are pre-installed & ready to use and are NOT packaged as displayed here. CD Disks are provided separately.

MACS WITH MPEG OPTION ALSO COME WITH...
OCEAN LIFE HAWAII, RETURN TO ZORK, WARREN MILLER & WILD AFRICA

REMEMBER OUR 'PLUS-2' BUNDLE WHEN COMPARINGPRICES!

STANDARD PERFORMA 5200/5300 SYSTEMS & SOFTWARE

Two ALL-IN-ONE PowerMac Systems. The 5200 incorporates a 75Hz PowerPC 603 CPU and the 5300 a 100MHz 603 CPU. Both feature CD600i Drive, Integral 15" MultiScan FST Colour Display, Stereo Speakers, 800 Mb Hard Drive, Built-In Microphone and Infra Red Remote Control (TV versions only) - ALL IN ONE! Also includes... Mouse, Connecting Cables, Manuals & Apple Keyboard options.

	RAM	HD		MONITOR	CD	K/B	Price
5200	8Mb	800Mb	✘	15"MS Integral FST	✔	✘	£1129 (£1327)
5200	8Mb	800Mb	✘	15"MS Integral FST	✔	✔	£1219 (£1432)

PERFORMA 5200/5300 'PLUS-2' MULTIMEDIA BUNDLES

GH Performa 5200/5300 'PLUS-2' Bundles below INCLUDE ALL the software detailed above and then our MultiMedia 'PLUS-2' bundle too! GH offer you EXTRA VALUE with the addition of great software on CD. The higher spec units also boast built-in TV with full infra red remote control of Start Up/Shut Down/TV and CD Functions. Infra red can be added to other 5200/5300's Macs with the Apple TV Upgrade Kit.

FREE MULTIMEDIA SOFTWARE

SUPPLIED WITH... ClickArt, eWorld, Hypercard Player, MacGallery, Mavis Beacon, Millie's Maths House, Performa 7.5 System Software, PC Exchange, Spin Doctor, SuperMaze Wars and Thinkin' Things 2 PLUS... ASTERIX LANGUAGE, CONCERTWARE, DORLING KINDERSLEY "The Way Things Work", EA 3D ATLAS, GROLIER MULTIMEDIA ENCYCLOPAEDIA, MAKING MUSIC, MYST, REDNEX, ROCK-RAP-ROLL, SNOOPY and DAEDELUS ENCOUNTER...ALL CD ROMs!!!
MODELS WITH TV FACILITY INCLUDED ARE ALSO SUPPLIED WITH... AVID VIDEOSHOP & APPLE VIDEO PLAYER TOO!!!
MODELS WITH MPEG BUILT-IN ALSO COME WITH... AVIDOCEAN LIFE HAWAII, RETURN TO ZORK, WARREN MILLER & WILD AFRICA!!!

	RAM	HD		MONITOR	CD	TV	K/B	Price
5200	8Mb	800Mb	✔	15" MS Int. FST	✔	✘	✔	£1459 (£1714)
5200	8Mb	800Mb	✔	15" MS Int. FST	✔	✔	✔	£1549 (£1820)
5300	16Mb	1200Mb	✔	15" MS Int. FST with MPEG	✔	✔	✔	£2099 (£2466)

APPLE PERSONAL COMMUNICATIONS SOLUTION

PERSONAL COMMUNICATION SOLUTION

Some Macs are now supplied with Apple's Personal Communications Solution (wherever marked with this logo [shown left] on our advert) - It gives you access to FAX (both send & receive), ANSAPHONE SOFTWARE and, via eWORLD, access to INTERNET services. All available from your Mac with NO FUSS!

MAC POWERBOOKS

PORTABLE SAVINGS

WHILE STOCKS LAST FROM...£749 (£880.08 inc. VAT)

OR JUST... £5.93 PER WEEK (When Spending Over £750+)

POWERBOOK PORTABLE MACS

The 150 model offers entry into the acclaimed world of PORTABLE MAC POWERBOOKS! The latest 190 models are still very affordable but give massive upgrade potential and feature... PCMCIA Slot, Large Display, Expansion Bay and an upgrade path to include features of the Powerbook 5300c/100 and optional MS DOS/Windows Emulation too!

150 - 4/250 + Claris Works and Mobility Pack	£749	(£880)
150 - 4/250 + Claris Works, Mobility Pack, Global Village PP Gold Modem	£794	(£933)
520 - 4/240 + Mobility Pack	£1199	(£1409)
190/66 - 4/500 + Claris Works and Mobility Pack	£CALL	£Call
190cs/66 - 4/500 + Claris Works and Mobility Pack	£CALL	£Call

New Product

NEW POWER PC - POWERBOOK PORTABLE MACS

The PowerBook 5000 range offers the most advanced notebook technology around, making them ideal for high performance users. Each model in the range boasts the new Power PC 603e CPU for unsurpassed speed, built in PCMCIA Slot, Expansion Bay, InfraRed Technology and much more! The new Duo 2300c/100 brings RISC technology to Apple's smallest PowerBook with 603e Power PC CPU and allows 'Docking' for access to capabilities of a Desktop System - And... you can add MS DOS/Windows Emulation too!

5300/100 - 8/500 + Mobility Pack	£1489	(£1750)
5300cs/100 - 8/500 + Mobility Pack	£1849	(£2173)
5300cs/100 - 16/750 + Mobility Pack	£2349	(£2760)
5300c/100 - 8/500 + Mobility Pack	£2449	(£2878)
5300c/100 - 16/750 + Mobility Pack	£2949	(£3465)
5300ce/117 - 32/1100 + Mobility Pack	£4549	(£5345)
DUO 2300c/100 - 8/750	£CALL	(£Call)

NEW...

PCMCIA/GSM Mobile Phone Interface for POWERBOOK 500 Series - SOME PACKS EVEN INCLUDE MOBILE PHONES!!

CALL GH NOW FOR DETAILS!

POWERBOOK ACCESSORIES & SOFTWARE

150/Duo 230 - 4Mb RAM Upgrade	£166	(£195)
140/45,150,160/65,170,180/c - Battery	£43	(£50)
500 - 4Mb RAM Upgrade	£171	(£200)
500 - Express Modem	£325	(£381)
500 - PCMCIA Expansion	£113	(£132)
500 - Type III Intelligent Battery	£90	(£106)
Duo - Dock Plus inc. 230HD & VRAM	£622	(£730)
Duo - External 1.44 Mb Floppy Drive	£94	(£110)
Duo - Floppy Drive Adaptor	£81	(£95)
Duo - Deluxe Leather Carry Bag	£120	(£140)
Duo - Type III Rechargeable Battery	£77	(£90)
Powerbook (non Duo) - Security Kit	£26	(£30)
All Powerbooks - Norton Essentials	£81	(£95)
GSM Mobile FAX Pack for 500 Series Powerbooks	£975	(£1146)

WHILE STOCKS LAST

EXCLUSIVE GH 5001 FREE CLIP ART IMAGES

BUY ANY MAC WITH A FITTED CD DRIVE AND THIS SUPERB CD COLLECTION IS YOURS FREE... ONLY FROM GH

Use these great images to enhance your Mac documents - you'll have thousands of options at your fingertips which can be used in any program that supports TIFF format. Imagine a Claris Works word processing document with added graphics from subjects that include... Animals, Alphabets, Business, Cartoons, Computers, Sport, Exercise, Fashion, Travel, Food, Frames & Borders, Health, Holidays, Special Events, People, Religion, Retail Attention Getters and MORE!

- All our advertised products clearly show what's included and our packs are not "stripped down" just to give an attractive headline price.
- Our attractive and flexible commercial or personal finance agreements suit the budgetary needs of both businesses and individual purchasers. Ask for details, you could have your new MAC sooner than you'd think! See below for details*†
- Although all GH's offers are the keenest possible, this a fast moving business and things change rapidly. Call us to confirm prices and/or ask if new deals have started since this advert was published!
- If you're upgrading to a newer MAC or are looking for a real bargain, call us. We'll buy your old system or may just have the fully guaranteed second-user machine you're looking for right now!

6200s FROM...

£869 (£1021.08 inc. VAT)

OR JUST... £6.88 PER WEEK (When Spending Over £750+)

PERFORMA 6200 'PLUS-2' SYSTEMS AND SOFTWARE

All GH 6200 'PLUS-2' Packs incorporate, CD600i Drive, 500Mb or 800Mb Hard Drive, Built-In Speakers, Infra Red Remote Control (TV versions only), Mouse, Cables and Manuals plus Apple Design Keyboard options. All our Performa 6200 'PLUS-2' Packs are supplied with... System Software, At Ease, Claris Works, Manuals, Mouse, Connecting Cables etc, Monitor & Keyboard options and, just like 5200/5300s, FEATURE... the PowerPC 603 CPU!

SOME MAC CONFIGURATIONS NOW INCLUDE FREE APPLE COMMUNICATION SOLUTION!
PERSONAL COMMUNICATION SOLUTION
Performa 6200
Photo shows... Performa 6200 with Apple Keyboard and 15" MultiScan Monitor

REMEMBER THE GH MULTIMEDIA 'PLUS-2' BUNDLE WHEN COMPARING OUR PRICES TO OTHER DEALS!

PERFORMA 6200 'PLUS-2' MULTIMEDIA BUNDLE

When you buy a GH 6200 Multimedia 'PLUS-2' you are also...

FREE MULTIMEDIA SOFTWARE

SUPPLIED WITH... ClickArt, eWorld, Hypercard Player, MacGallery, Mavis Beacon, Millie's Maths House, Performa 7.5 System Software, PC Exchange, Spin Doctor, SuperMaze Wars and Thinkin' Things 2 PLUS... ASTERIX LANGUAGE, CONCERTWARE, DORLING KINDERSLEY "The Way Things Work", EA 3D ATLAS, GROLIER MULTIMEDIA ENCYCLOPAEDIA, MAKING MUSIC, MYST, REDNEX, ROCK-RAP-ROLL, SNOOPY and DAEDELUS ENCOUNTER...ALL CD ROMs!!!
MODELS WITH TV FACILITY INCLUDED ARE ALSO SUPPLIED WITH... AVID VIDEOSHOP & APPLE VIDEO PLAYER TOO!!!

RAM	HD		MONITOR	CD	TV	K/B	Price
8Mb	500Mb	✘	✘	✔	✘	✘	£869 (£1021)
8Mb	500Mb	✘	15" MultiScan	✔	✘	✔	£1239 (£1456)
8Mb	500Mb	✘	15" MultiScan	✔	✔	✔	£1399 (£1644)
8Mb	800Mb	✔	15" MultiScan	✔	✘	✔	£1429 (£1679)

All listed prices are what YOU PAY, and there are NO HIDDEN EXTRAS. Prices are correct at time of going to press (Pack details may vary from time to time). Offers and Services are subject to availability and to being the latest advertised products, packs and prices. Please note goods are not supplied on a trial basis. E&OE

WHEN CONSIDERING FINANCE, PLEASE ENSURE THAT YOU REFER TO THE APPROPRIATE SECTION BELOW AS ARRANGEMENTS DIFFER FOR PERSONAL INDIVIDUALS AND BUSINESSES (Including Sole Traders, Partnerships etc.)

BUSINESS FINANCE†: Weekly rates shown exclude VAT and are based on a fixed cost 3 year Apple Commercial Credit lease, payable quarterly. Available to all businesses, including those recently established, making a minimum total purchase of £750 - subject to status.

PERSONAL FINANCE - *DEFERRED PAYMENT PLAN*: FOR PERSONAL INDIVIDUALS* VISITING OUR SHOWROOM FOR A LIMITED PERIOD AVAILABLE ON PURCHASES OVER £500... PAY A MINIMUM OF 10% DEPOSIT NOW, THEN NOTHING MORE FOR 5 MONTHS! During that period you can settle IN FULL (without any finance charges) or continue your agreement with normal interest arrangements (ie. Direct Debit APR 27.8%/2.07% per Month, Payment Book 32.4%/2.37% per Month). And... for the first 5 months you'll also receive FREE AGREEMENT LIFE COVER. Written details/quotations available on request. *Subject to status. Please contact us prior to your visit for details of easy application requirements.

NEW 7200/7500/8500 & 9500s - NEW LOW PRICES!

POWERMACS

SEE BELOW* FOR HARDWARE DOS CARD 486 PC COMPATIBLE 6100/60s, and remember, ALL MACS/POWERMACS CAN RUN WINDOWS IF REQUIRED VIA SOFTWINDOWS

Photo shows... Power Mac 6100 with Apple Extended Keyboard and Apple 14" Audio Vision Monitor

Some prices are for CPU only. Don't forget a Keyboard & Monitor

ALL GH POWERMACS INCLUDE SYSTEM S/W, MOUSE, MANUALS, CONNECTION LEADS etc.

AFFORDABLE POWERMAC SYSTEMS FROM ONLY...

£949 (£1115.08 inc. VAT)

PAYMENT PLAN FOR BUSINESS USERS

OR JUST... **£9.95** PER WEEK (When Spending Over £750+)

GREAT GH DEALS ON ENTRY LEVEL POWERMAC 6100s

While Stocks Last

	RAM	HD	Display	CD	Keyboard	Price
6100/66	8Mb	350Mb	✘	✘	✘	£949 (£1115)
6100/66 + PC*	8Mb	500Mb	✘	✘	✘	£1529 (£1797)

*6100/66 PC System's inc. 486 DX2 66MHz card & MS DOS 6.2 (Windows may be purchased separately)

*REMEMBER YOU ALSO GET AN EXTRA 8Mb RAM ON THE DOS CARD TOO GIVING 16Mb IN TOTAL!

LIMITED OFFER SAVINGS — NEW... GH HIGH SPEC POWERMAC 7200/7500/8500s

	RAM	HD	Display	CD	Keyboard	Price
NEW 7200s						
7200/75	8Mb	500Mb	✘	✘	✘	£949 (£1115)
7200/75	8Mb	500Mb	15" MS	✘	✔	£1327 (£1559)
7200/90 CD	8Mb	500Mb	✘	✔	✘	£1189 (£1397)
7200/90 CD	8Mb	500Mb	15" MS	✔	✔	£1499 (£1761)
7200/90 CD	16Mb	1Gb	✘	✔	✘	£1779 (£2090)
NEW 7500s						
7500/100 CD	8Mb	500Mb	✘	✔	✘	£1399 (£1644)
7500/100 CD	8Mb	500Mb	17" MS	✔	✔	£2129 (£2502)
7500/100 CD	16Mb	1Gb	✘	✔	✘	£2289 (£2690)
NEW 8500s						
8500/120 CD	16Mb	2Gb	✘	✔	✘	£3499 (£4111)

POWERMAC 9500 FROM JUST...

£3699 (£4346.33 inc. VAT)

PAYMENT PLAN FOR BUSINESS USERS

OR JUST... **£9.69** PER WEEK (When Spending Over £750+)

Photo shows... Power Mac 8100/80 with Apple Extended Keyboard and Apple 20" Multiscan Monitor

Some prices for CPU only. Don't forget a Keyboard & Monitor

NEW GH 9500s - THE FASTEST MACS EVER!

The all new Apple Powermac 9500 Range sets new standards for speed, performance, expandability and processor upgradability. If you are a designer, engineer, multimedia expert or anyone with a need for POWER, these are the Macs to buy! Each model incorporates 6 Industry Standard PCI expansion slots for low cost plug in card possibilities. The 9500/120 CDGR & the 9500/132 CDGR come with an Accelerated 24-Bit PCI Graphics Card already fitted, whilst the 9500/132 CD is supplied without this card - allowing you to add a Graphics/Other Cards of YOUR choice.

LIMITED OFFER SAVINGS

	RAM	HD	Display	Apple Graphics Card*	CD	K/B	Price
9500/120 CDGR	16Mb	1Gb.	✘	✔	✔	✘	£3699 (£4346)
9500/120 CDGR	16Mb	1Gb.	20" MS	✔	✔	✔	£4599 (£5404)
9500/132 CD	16Mb	2Gb.	✘	✘	✔	✘	£4199 (£4934)
9500/132 CDGR	16Mb	2Gb.	✘	✔	✔	✘	£4399 (£5169)

*2Mb VRAM Included - Further 2Mb VRAM for extra performance also available - Please ask us!

Confirm you're getting the **BEST DEAL...** call those friendly people at the UK's FAVOURITE RESELLER!

"Got a technical problem?" "Need an Upgrade?" "Want a new peripheral fitting?" **LOOK NO FURTHER...** Our Apple Approved Engineers will do the job.

GH MONITOR MADNESS

Monitor Model	Built in Speakers	Price
Apple 14" Performa Plus (.28)	✘	£219 (£257)
Apple 14" Trinitron (.26)	✘	£249 (£294)
NEW Apple 14" MultiScan (.28)	✔	£CALL (£Call)
Apple 15" MultiScan (.28)	✔	£299 (£352)
Sony 15" SFI Trinitron MultiScan (.26)	✘	£345 (£406)
Formac 17" Trinitron MultiScan (.26)	✘	£549 (£645)
Apple 17" Trinitron MultiScan (.26)	✔	£659 (£775)
Sony 17" SFI Trinitron MultiScan (.26)	✘	£659 (£775)
Radius 17" PrecisionView Trinitron (.26)	✘	£669 (£786)
NEW Apple 17" Trinitron AudioVision 1710 (.26)	✔	£699 (£821)
Radius 20" IntelliColor (.26)	✘	£1359 (£1597)
Apple 20" Trinitron Multiscan (.26)	✘	£1399 (£1644)

LC III/Performa 450-460-630/*Quadra 630/Powermac 5200*-5300*-6100-6200* Max 17" Performa 475/Powermac 7100-7200-7500-8100-8500-9500 Max20"

NB. The number of colours displayed along with the maximum resolutions possible may be dependent upon the amount of video RAM (VRAM) individual Macs have as standard - or can be expanded to. Please confirm the maximum capabilities of your particular CPU/monitor combination prior to ordering - ask GH for full details.

MACINTOSH KEYBOARDS

Apple Design Keyboard	£79 (£93)
Apple Extended Keyboard	£139 (£164)
Apple Adjustable Keyboard	£165 (£194)

TV, VIDEO & GRAPHICS UPGRADES

630/5200/6200 Video-In Card	£90 (£106)
630/5200/6200 Video-In and TV Tuner Card	£210 (£247)
630/5200/6200 Video-Out Card	£210 (£247)
630/5200/6200 MPEG FMV Video CD Playback Card with...	£199 (£234)
FREE: Ocean Life Hawaii, Return to Zork, Warren Miller & Wild Africa software (ONLY fits systems without DOS card... Requires video in or video in/TV tuner)	
Raster Ops Paintboard Prism 24-Bit Accel. Nubus Graphics Card	£539 (£634)
5200 External Monitor Connection Port Kit	£29 (£34)

MACINTOSH CHIP UPGRADES

RAM - 4Mb SIMMS	£105 (£123)
RAM - 8Mb SIMMS	£199 (£234)
RAM -16Mb SIMMS	£359 (£422)
RAM - 4Mb to 32Mb DIMMS	£CALL GHIII
Powermac 256K Cache	£159 (£187)
Powermac 512K Cache	£251 (£295)
630 - FULL 68040 with FPU Chip Upgrade	£309 (£363)

MACINTOSH EXPANSIONS

Personal Communication Solution for 630/5200/6200 Macs, includes DATA, FAX, & ANSAPHONE software with an internal 14400 Modem — £199 (£234)

Powermac 6100... PC 486 DX2 66MHz Hardware PC Card with DOS 6.2 software — £399 (£469)

Collection, fitting and redelivery for upgrades please add... £30 (£36)

YOU CAN HAVE **ABSOLUTE CONFIDENCE IN GH!**

GH is a family business established in 1955, supplying computers since 1982.

With approaching £40 million worth of units sold, and almost a quarter of a million happy customers, our trading and service records are second to none!

For example - our after sales care even includes FREE collection and return by our Apple Authorised Service Department of major units purchased by mail order, should it be required. Ask other dealers to explain their back up procedures and make sure that it's what you would expect!

Why don't YOU try us and find out why WE are the UK's Favourite Apple Reseller?

Giles Harwood - Managing Director

FAX FOR A... **QUICKQUOTE 01-773 831040**

ORDER HOTLINE... **01-773-836781**

ALL Credit Cards are Security Checked!

MACINTOSH SOFTWARE

GRAPHICS	Quark Xpress 3.3 - Native PowerMac	£649	(£763)
	- 68030/40 (Non P/Mac)	£587	(£690)
	Adobe Illustrator 5.5	£289	(£340)
	Adobe Photoshop 3.0	£400	(£470)
	Adobe Collection	£499	(£586)
	KAI's Power Tools	£99	(£116)
	NEW KPT Vector Effects	£99	(£116)
	NEW KPT Power Photos	£99	(£116)
	KPT Convolver	£99	(£116)
	KPT Bryce	£99	(£116)
	Aldus Freehand 5.0	£320	(£376)
BUSINESS	Claris Works 4.0	£98	(£115)
	Claris Filemaker Pro	£98	(£115)
	Microsoft Office	£362	(£425)
	Microsoft Word	£255	(£300)
	Microsoft Excel	£259	(£304)
	WriteNow	£30	(£35)
	M.Y.O.B (accounts)	£150	(£176)
	SignPost	£79	(£93)
UTILITY	SAM	£55	(£65)
	SAM 4.0 (Inc. 1Yrs Updates)	£109	(£128)
	RAM Doubler	£60	(£70)
	Speed Doubler	£60	(£70)
	Norton Utilities	£81	(£95)
	Suitcase	£59	(£69)
	After Dark 3.5	£30	(£35)
EDUCATIONAL	Encarta '95	£64	(£75)
	Cinemania '95	£42	(£49)
	Kid Pix 2	£30	(£35)
	Living Books - Tortoise & the Hare	£30	(£35)
	DK - The Way Things Work	£41	(£48)
	DK - Incredible Dictionary	£34	(£40)
	DK - Encyclopaedia Science	£64	(£75)
	DK - Ultimate Human Body	£51	(£60)
	Creative Writer	£30	(£35)
	Fine Artist '95	£29	(£34)
	Wine Guide '95	£29	(£34)
GAMES	MYST CD	£34	(£40)
	Marathon	£39	(£46)
	SIM City 2000	£30	(£35)
	Dark Forces	£34	(£40)
	A-10 Attack	£39	(£46)

MACALLY GAMES CONTROLLERS
Joystick £43 (£50)
GamePad £34 (£40)

"...at GH, we'll look after you..."

SERVICE, SUPPORT and WARRANTIES: GH is one of Apple UK's selected Authorised Service Providers (not all Resellers have this accreditation). Our standard One Year GH Gold Warranty gives you a comprehensive backup. GH also offer a range of options for business and professional users which may be essential for systems in high dependency/constant use.

BY PHONE: We'll help with any queries and, when you're ready to order we accept AMEX, Visa, Mastercard, Access, Switch, Connect, Delta and Lombard Creditcharge (most 'store cards' are Lombard Creditcharge and we happily accept them).

BY POST or FAX: When ordering include your name, address and preferably a contact phone number with your order requirements. If charging a credit/debit card, include its number and expiry date (and issue number with Switch cards). Make Cheques (please allow 7 days clearance prior to despatch), Bankers/Building Society Drafts or Postal Orders payable to Gordon Harwood Computers.

PRICES: Please remember to confirm prices in case you are looking at an 'old' magazine. Prices can change (up or down) before the magazine's cover month has passed. Please confirm before sending orders by post.
*(For the convenience of personal and business customers, we list **most** prices both with and without VAT (Inc. VAT prices are to the nearest full £ and shown in brackets).*

EXPORT: Most items are available at TAX FREE PRICES to non EC residents & overseas UK Armed Forces Personnel (with CO's document). Please call us for confirmation of prices and carriage charges.

DELIVERY: We ship promptly & offer delivery of all orders throughout Mainland UK & most products overseas. If your order is urgent we have priority despatch options with express delivery available.

WE'RE OPEN... Monday to Saturday 9am until 5pm

"Why not visit our Apple Showroom where most models are on display".

We supply all Government/Educational Departments and Major PLC's and respond rapidly to your quotation requests

gordon harwood computers

the UK's favourite Apple reseller!

GORDON HARWOOD COMPUTERS LIMITED
(Department MAF/S18)
NEW STREET ALFRETON
DERBYSHIRE DE55 7BP
Telephone: 01-773-836781
Facsimile: 01-773-831040

THE GH FAIR SERVICE CHARTER

We want you, our customer, to be happy with the service we offer and the purchases you make. Buying and supporting a system that will become indispensable for your personal or business use is a two way process. This involves you making the correct initial choices and working in partnership thereafter with your preferred supplier for support services to ensure you get the best from your system. Information is always given in good faith as part of this process, but Harwoods cannot always provide absolute compatibility guarantees for products we do not manufacture ourselves. You are therefore advised of your responsibility to confirm compatibility, suitability and RAM/Storage capacity requirements with hardware/software manufacturers prior to purchase... especially if specific purposes or tasks to be performed are a pre-requisite to the system's suitability as a whole. We are always pleased to provide any contact details required to facilitate this, and we reserve the right to charge a variable re-stocking fee for returned goods incorrectly ordered. Please also ensure that the standard warranty included is satisfactory for your needs. Special enhanced or extended warranty options which, for instance provide fast on-site response and minimal down time, may be essential to you and these should be requested if required. All transactions are subject to Harwood's full terms and conditions of sale, a copy of which is available on request. This advertisement is an invitation to treat, not an offer to sell.

Apple Authorised Reseller & Service Provider

JUST 10% DEPOSIT THEN... PAY NOTHING FOR THE NEXT 5 MONTHS!* see below

PERSONAL CALLERS TO OUR STORE CAN TAKE ADVANTAGE OF OUR DEFERRED PAYMENT PLAN* WHILST BUSINESSES ARE OFFERED A GH FINANCE SCHEME TOO*

0% PAYMENT PLAN FOR PERSONAL CALLERS

EPSON GT8500

FROM... £569 (£668.58 inc. VAT)

OR JUST... £4.50 PER WEEK (When Spending Over £750♦) — PAYMENT PLAN FOR BUSINESS USERS

Model	Resolution (dpi) Optical	Max	Software	Price
New Product — NEW EPSON GT 5000 LOW COST 300 x 1200dpi SCANNER with Photoshop LE & Xerox Text Bridge OCR Software DUE VERY SOON - CALL GH for full details!				
GT 8500	400	1600	Photoshop LE & Omnipage Direct	£569 (£669)
GT 8500	400	1600	Full Photoshop	£779 (£915)
GT 9000	600	2400	Photoshop LE & Omnipage Direct	£689 (£810)
GT 9000	600	2400	Full Photoshop	£879 (£1033)
Epson Transparency Adaptor for... 6000/6500/8000/8500 or 9000 Models (Please quote which scanner the adaptor is for when ordering)				£418 (£491)

EPSON WARRANTY: Epson Scanners include CUSP, 1st year on-site REPLACEMENT from distributor 'Customer Satisfaction Programme'

EPSON LAPCAT

New Product

OCR MANAGEMENT SYSTEM

GREAT GH VALUE... £339

OR JUST... £2.68 PER WEEK (When Spending Over £750♦) — PAYMENT PLAN FOR BUSINESS USERS

The NEW... EPSON OCR LAPCAT DOCUMENT MANAGEMENT SYSTEM...

at last provides a reliable way to manage YOUR paperwork... from business documents and reports, to product literature, even press clippings etc - there's virtually no material LapCAT can't handle. You know the feeling when your desk is full of paperwork that you just haven't had time to file - well, now you quickly and simply scan it all into the Epson LapCAT and retrieve it at will.

- FILE ELECTRONICALLY - Scan, Store and Retrieve on demand
- HANDLE TEXT/GRAPHICS - LapCAT will copy the complete page
- AUTOFEED - 10 documents upto A4 will feed/scan (inc. business cards)
- UTILISE TEXTBRIDGE - Xerox OCR Software (Optical Character Recognition) - and then if you...
- ADD A FAX MODEM - You have a Personal Fax Generator
- ADD A PRINTER - You have a Personal Desktop Copier

EPSON STYLUS COLOUR II

New Product

£329 (£386.56 inc. VAT)

OR JUST... £2.60 PER WEEK (When Spending Over £750♦) — PAYMENT PLAN FOR BUSINESS USERS

FREE FONTS with ALL Epson Printers See Page 4 for details

INCLUDES A FREE CABLE

Quality inkjet printing BUT at a BUDGET PRICE!!! A4 size Inkjet Printer with a max maximum resolution of 720dpi! Epson 3 YEAR WARRATY! The Colour II can use Gloss paper, Coated paper and Transparencies - Budget Price... Great Quality Print!

WHILE STOCKS LAST

GREAT QUALITY INKJET PRINTING ON A3 PAPER

STYLUS PRO XL

£1399 (£1643.83 inc. VAT)

OR JUST... £11.07 PER WEEK (When Spending Over £750♦) — PAYMENT PLAN FOR BUSINESS USERS

INCLUDES A FREE CABLE

PostScript Software option available soon for Stylus XL and A4 PRO

GH have secured stocks of the exciting NEW EPSON STYLUS PRO XL inkjet printer which boasts an incredible 720 x 720dpi maximum resolution. Not only that, but output can be A3 PLUS BLEED! This is the ultimate inkjet Proofing Device - Ask GH for more details. •A3 + BLEED •720 X 720dpi QUALITY HIGH RESOLUTION •EASYCHANGE TRICOLOUR/BLACK CARTRIDGES •BUILT IN SHEET FEEDER •INCLUDES EPSON 1 YEAR WARRANTY •ETHERNET AVAILABLE

NEW EPSON STYLUS PRO A4 COLOUR INKJET PRINTER

A4 version of the above with a similar specification... •EASYCHANGE TRICOLOUR/BLACK CARTRIDGES •BUILT IN SHEET FEEDER •A4 PAPER SIZE •720 X 720dpi QUALITY HIGH RESOLUTION •INCLUDES EPSON 1 YEAR WARRANTY •PIEZO FINE DOT •EPSON MICROWEAVE TECHNOLOGY •ETHERNET AVAILABLE

SUPERIOR QUALITY AT ONLY... £639 (£751)

THE FASTEST WAY TO GET PAPER INTO YOUR MAC!

PAPERPORT FOR JUST...

£319 (£374.83 inc. VAT)

OR JUST... £2.52 PER WEEK (When Spending Over £750♦) — PAYMENT PLAN FOR BUSINESS USERS

ALLOWS ELECTRONIC STICKY NOTES, LINES, ARROWS AND TEXT TO BE ADDED TO YOUR DOCUMENTS. CAN AUTO MOVE SCANNED DOCUMENTS INTO YOUR FAVOURITE PROGRAMS TOO!

New Product

PAPERPORT OCR MANAGEMENT & FILING SYSTEM...

Ever had a problem finding your desk under a mountain of paperwork? Then this is the answer...

- FLEXIBLE - Scans everything from a business card to newspaper cuttings - including photographs
- FITS - between keyboard and monitor
- EASY - Insert document and it appears on screen for editing
- FAST - Scan/Display of a page in approx. 6 secs!
- INCLUDES - WordScan OCR software, 200 to 400dpi, and works with FAX Modems too!

NEWTON HAND HELDS FROM...

£199 (£233.83 inc. VAT)

OR JUST... £1.57 PER WEEK (When Spending Over £750♦) — PAYMENT PLAN FOR BUSINESS USERS

NEWTON 110 -1Mb	£199 (£234)
NEWTON 120 - 2Mb	£399 (£469)
1Mb Storage Card	£60 (£70)
2Mb Storage Card	£111 (£130)
4Mb Storage Card	£199 (£234)
Connection Kit - Mac	£51 (£60)
Connection Kit - Windows	£51 (£60)
Leather Carrycase - 100/Original Message Pad	£34 (£40)
Leather Carrycase - 110/120	£42 (£50)
Battery Pack Wall Recharger including Battery - 100	£34 (£40)
Mains Charge Station inc. Batt. -110/120	£47 (£56)
Nicad Battery - For Newton 110	£14 (£17)
Nicad Battery - For Newton 100/Original Message Pad	£13 (£16)
Tapworks	£51 (£60)
Graffiti	£39 (£46)

LOTS MORE NEWTON SOFTWARE AND PERIPERALS etc. AVAILABLE PHONE GH!

TI LASER TONERS AVAILABLE NOW!

FREE FONTS with TI Printers - See Page 4 for details ONLY FROM GH!

WHILE STOCKS LAST

TEXAS 600dpi LASER

FROM... £599 (£703.83 inc. VAT)

OR JUST... £4.74 PER WEEK (When Spending Over £750♦) — PAYMENT PLAN FOR BUSINESS USERS

TEXAS INSTRUMENTS MICROLASER 600 & PRO 600 features...

- A4 Paper Size • Fast 5ppm (600)/8ppm (600 Pro) • PCL 5 Emulation
- RISC Processor • 250 Sheet Paper Tray • Autosensing for MAC/IBM Compatibles
- True 600 x 600 dpi Res. • Adobe Postscript Level 2
- Optional Sheet Feeder for various Paper, Labels, Envelopes, Transparencies etc.)
- 2 or 4Mb RAM (max 10Mb) - 600 • 3Mb RAM (max 22Mb) - 600 Pro

Both the 600 (2Mb) & 600 Pro incorporate a RAM BOOSTER allowing many 4Mb files to be output even with 2Mb RAM. Please note that 600dpi print files are FOUR TIMES the size of equivalent 300dpi print files FOR ALL PRINTERS - GH therefore still recommend that whilst 2Mb is adequate for WP etc., 4Mb or more will extend the capabilities for large graphic output files etc. at 600dpi.

TI Microlaser 600 Model...	Price
MICROLASER 600 with 2Mb RAM + RAM BOOSTER*	£599 (£704)
MICROLASER 600 with 4Mb RAM	£725 (£852)
2Mb RAM Upgrade	£145 (£171)
MICROLASER 600 PRO Including 3Mb RAM + RAM BOOSTER*	£850 (£999)
ETHERNET INTERFACE for TI 600 & PRO Please state model when ordering	£CALL

Leaf a scitex company scitex

ASK GH ABOUT A FREE DEMONSTRATION ANYWHERE IN THE UK

New Product

Captures an image at 2700 x 3400 (26Mb) resolution in just 3 minutes (33MHz Quadra 950. Great quality output even at A4 size.

INCLUDES 35mm SLIDE ADAPTOR!

- Ideal for Graphic Artists, Designers, In-House publishers, Service Bureaux, Newspaper/Magazine art departments etc. that need to cut out the waiting time for their Photographic requirements... Now YOU control the imaging schedule - in a quick & easy way.
- Cut scan times. Get transparencies/photos directly into your Mac.

DIGITAL ELECTRONIC PHOTO SCANNER/CAMERA

2700x3400 LUMINA! £2999 (£3523.83 inc. VAT)

OR JUST... £23.24 PER WEEK (When Spending Over £750♦) — PAYMENT PLAN FOR BUSINESS USERS

The NEW... LEAF LUMINA from SCITEX is a revolutionary 2700 X 3400 resolution full colour imaging product designed to bring production quality photographic images onto the desktop. You can use the Lumina with standard photographic accessories such as a tripod, copy stand, studio lights, lens filters/gels etc. to capture not just flat artwork, but also 3 DIMENSIONAL OBJECTS/SCENES too! Lumina is supplied with its own 50mm lens and also accepts 'off the shelf' standard Nikon fitting 35mm SLR Camera lenses for real versatility. Operation is really simple, Arrange your 'still life' items and light them etc. and Lumina will input via your Macs SCSI interface. The picture will preview/update on your Mac monitor as the image progresses! IT'S AS EASY AS THAT!

- Includes Lumina Software consisting of 2 Photoshop Plug-Ins
- Full focusing facilities for total creative control • Full MAC screen previews at 72dpi on a 19" monitor in around 20 secs.
- Use to Scan Artwork & Transparencies (35mm to 6 x 7cm) too.

THE COST EFFECTIVE WAY TO GET QUALITY IMAGES INTO MACS!

UMAX

Best Buy MacUser — PC WORLD — PC MAGAZINE EDITORS' CHOICE — MACWORLD MW EDITORS' CHOICE — HOT PRODUCT 1994 — COMPUTER ARTIST'S TOP PRODUCT 1994 — MacUser RATING NOVEMBER 1994 — IMAGING MAGAZINE EDITORS' CHOICE — Personal Computer World HIGHLY COMMENDED — Publish impact AWARDS '94

Model	Resolution (dpi) Optical	Max	Transp. Adaptor	Photoshop	Price
VISTA T630	600 x 300	4800	✘	✘✦	£279 (£328)
VISTA T630	600 x 300	4800	✘	LE✦	£299 (£351)
VISTA T630	600 x 300	4800	✔	FULL✦	£799 (£939)
VISTA S8	800 x 400	6400	✘	LE✦	£539 (£633)
VISTA S8	800 x 400	6400	✘	FULL✦	£699 (£821)
VISTA S8	800 x 400	6400	✔	FULL✦	£979 (£1150)
UC 1260	1200 x 600	9600	✘	LE✦	£649 (£763)
UC 1260	1200 x 600	9600	✘	FULL✦	£789 (£927)
UC 1260	1200 x 600	9600	✔	FULL✦	£1099 (£1291)
GEMINI	800 x 800	9600	✘	LE✦	£799 (£939)
New Product GEMINI	800 x 800	9600	✘	FULL✦	£899 (£1056)
GEMINI	800 x 800	9600	✔	FULL✦	£1239 (£1456)
POWERLOOK	1200x600	9600	✘	FULL✦	£1679 (£1973)
POWERLOOK	1200x600	9600	✔	FULL✦	£1895 (£2227)
New Product MIRAGE A3	1600 x 800	9600	✔	FULL✦	£5999 (£7049)

✦ Include MagicSCAN & MagicMATCH Software
✦ Include VistaSCAN Software

GH OMNIPAGE SOFTWARE OPTION... Buy Omnipage with ANY Umax Scanner from GH and pay JUST... £45 (£53)

VISTA S8...

£539 (£633.33 inc. VAT)

OR JUST... £4.26 PER WEEK (When Spending Over £750♦) — PAYMENT PLAN FOR BUSINESS USERS

GENUINE UK UNITS... ALL GENUINE UK UMAX PRODUCTS COME WITH A FULL 1 YEARS ON-SITE WARRANTY. GREY IMPORTS DO NOT CARRY THIS OFFICIAL WARRANTY. ALL GH UMAX PRODUCTS ARE GENUINE UK UNITS - MAKE SURE OTHERS ARE!

Transparency Adaptors (please quote Umax scanner model when ordering)	£422 (£499)
50 Sheet Document Feeder for Vistas	£379 (£445)

WE CAN DEMONSTRATE BOTH POWERLOOK, MIRAGE AND LUMINAS ANYWHERE IN THE UK - See just how good the results are from these great products!!! - Call GH for your FREE DEMONSTRATION -

All listed prices are what YOU PAY, and there are NO HIDDEN EXTRAS. Prices are correct at time of going to press (Pack details may vary from time to time). Offers and Services are subject to availability and to being the latest advertised products, packs and prices. Please note goods are not supplied on a trial basis. E&OE.

WHEN CONSIDERING FINANCE, PLEASE ENSURE THAT YOU REFER TO THE APPROPRIATE SECTION BELOW AS ARRANGEMENTS DIFFER FOR PERSONAL INDIVIDUALS AND BUSINESSES (Including Sole Traders, Partnerships etc.)

**BUSINESS FINANCE* : Weekly rates shown exclude VAT and are based on a fixed cost 3 year Apple Commercial Credit lease, payable quarterly. Available to all businesses, including those recently established, making a minimum total purchase of £750 - subject to status.*

**PERSONAL FINANCE* - *DEFERRED PAYMENT PLAN*: FOR PERSONAL INDIVIDUALS* VISITING OUR SHOWROOM FOR A LIMITED PERIOD AVAILABLE ON PURCHASES OVER £500... PAY A MINIMUM OF 10% DEPOSIT NOW, THEN NOTHING MORE FOR 5 MONTHS! During that period you can settle IN FULL (without any finance charges) or continue your agreement with normal interest arrangements (ie. Direct Debit APR 27.8%/2.07% per Month, Payment Book 32.4%/2.37% per Month). And... for the first 5 months you'll also receive FREE AGREEMENT LIFE COVER. Written details/quotations available on request. *Subject to status. Please contact us prior to your visit for details of easy application requirements.*

FREE FONTS WITH ALL PRINTERS ONLY FROM GH!!!

NEW APPLE 4/600PS

600 dpi LASER

£599 (£703.83 Inc. VAT)

New Product

OR JUST.. **£4.74** PER WEEK (When Spending Over £750+)

FREE FONTS with Apple 4/600PS Printer See below for details ONLY FROM GH!

WHILE STOCKS LAST

Mono A4, 600dpi, 4ppm, RISC Processor, Adobe PostScript Level 2, 2Mb RAM (exp. to 6Mb), Adobe Memory Booster allowing printing of complex files with less RAM, LocalTalk, can link to TokenTalk and Ethernet via LaserWriter Bridge 2.0 Software - APPLE's own 600 dpi!

APPLE MONO LASERWRITER PRINTERS...

Personal LaserWriter 300 - 300dpi, 4ppm Mono	**£429**	(£505)
LaserWriter 320 - 300dpi, 5ppm Mono, P/Script Level 2	**£649**	(£763)
LaserWriter Select 360 - 600dpi, 10ppm Mono, P/S Level 2	**£1049**	(£1233)
LaserWriter 16/600 - 600dpi, 16ppm Mono, Postscript Level 2	**£1599**	(£1879)

APPLE 12/600PS COLOUR LASERWRITER

COLOUR LaserWriter - Full Colour and Mono A4, 600dpi, 12ppm Mono/3ppm Colour, RISC Processor, Adobe PostScript Level 2, 12Mb RAM (exp. to 40Mb), LocalTalk/Ethernet/Parallel etc. **£4999** (£5874) Includes FREE LOCAL installation

APPLE StyleWriter 1200 Mono
360dpi x 720dpi Inkjet 3PPM Printer for budget laser-like quality output. Quickdraw GX compatible.
£199 (£234)

APPLE StyleWriter 2400B Colour
Excellent 360dpi colour output or 720 x 360 dpi mono. Ideal for proofs - the LATEST Colour S/Writer
£349 (£410)

APPLE StyleWriter 2200 Colour
Colour 360dpi or Mono 720 x 360 dpi. Compact and Portable - Ideal if you're on the move.
NEW LOW PRICE!!! **£279** (£328)

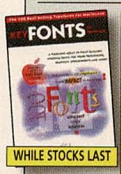
StyleWriter 2200 Rechargeable Battery
£58 (£68)

HP DESKWRITER Inkjet Printers...

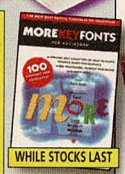
NEW...HP340 Mono 600 x 600dp **£214** (£251)
Also has option to add colour kit for 600 x 300dpi colour prints

HP600 - Mono 600 x 600dpi **£247** (£290)

HP660 - Colour 600 x 300dpi **£349** (£411)
With Resolution Enhancement!



EXCLUSIVE to GH...
100 FREE FONTS WITH EVERY PRINTER PURCHASED!!!
GH WILL GIVE YOU FREE - THE 100 "MORE KEY FONTS' SET COMPATIBLE WITH YOUR NEW PRINTER (either TrueType or PostScript Type 1), AND THEN, IF YOU WISH, YOU CAN ALSO PURCHASE THE 100 'ORIGINAL KEY FONTS' SET FOR ONLY £30!
REMEMBER THOUGH, THIS OFFER IS AVAILABLE ONLY WHEN YOU BUY YOUR PRINTER FROM GH!



WHILE STOCKS LAST

PRINTER CONSUMABLES

StyleWriter...			**All HP DeskWriters (except 660)...**	
I/II/Portable - Black Cartridge	**£16**	(£19)	Black Double Cap. Cart.	**£21** (£24)
2400 - Black Cartridge	**£22**	(£26)	Tri Colour Cartridge	**£24** (£28)
Colour Cartridge	**£24**	(£28)	**HP 340/600/660 DeskWriters...**	
Black Ink Tank	**£6**	(£7)	Black Double Cap. Cart.	**£24** (£28)
Colour StyleWriter Pro...			Tri Colour Cartridge	**£25.50** (£30)
Black Hi-Capacity Cart.	**£8.50**	(£10)	**Toners...**	
C, M, Y or K Cartridge	**£7.50**	(£9)	For Apple 300/320	**£51** (£60)
CMYK - 4 Colour Set Cart.	**£30.50**	(£36)	For Apple 360	**£81** (£95)
Epson Stylus...			For Apple 16/600	**£90** (£106)
Black Cartridge	**£17**	(£20)	**Apple Inkjet Printer Paper...**	
Colour Cartridge	**£30**	(£35)	A4 Coated - 200 Sheets	**£24** (£28)
360dpi Paper, 200 Sheet	**£19**	(£22)	A4 Backprint - 20 Sheets	**£25.50** (£30)
720dpi Paper, 200 Sheet	**£22**	(£26)	A4 Glossy - 50 Sheets	**£28** (£33)

GH ACCESSORIES ESPECIALLY FOR YOUR APPLE

10 - TDK 3.5" HD Blank Disks	**£7.66** (£9)
50 - TDK 3.5" HD Blank Disks	**£34** (£40)
3.5" Disk Head Cleaning Kit	**£3.40** (£4)
GH Quality Mouse Mat	**£4.26** (£5)
SPECIAL - GH ESSENTIALS PACK: *10 3.5" HD Disks, Mouse Mechanic, Disk Head Cleaner and Mouse Mat*	**£17** (£20)
SPECIAL - GH ESSENTIALS PLUS PACK: *As above PLUS Apple 1 Year On-Site Maintenance Warranty*	**£30** (£35)
Essential Mouse Mechanic Maintenance Tool	**£5** (£6)
Genuine Apple Desktop II Ergonomic Mouse	**£38** (£45)
Syquest 44Mb Cartridge	**£34** (£40)
Syquest 88Mb Cartridge	**£43** (£51)
Syquest 200Mb Cartridge	**£68** (£80)
APPLE 1 YEAR ON-SITE MAINTENANCE	**£20** (£24)

200 SYQUEST 200Mb Standard 5.25" Syquest Drive Just... **£383** (£450)

PINNACLE RCD 1000 CD ROM WRITER Only... **£1299** (£1526)

88 SYQUEST 88Mb Standard 5.25" Syquest Drive Only... **£263** (£309)

Confirm you're getting the **BEST DEAL...** *call those friendly people at the UK's FAVOURITE RESELLER!*

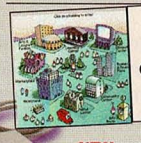
"Got a technical problem?" "Need an Upgrade?" "Want a new peripheral fitting?" **LOOK NO FURTHER...** *Our Apple Approved Engineers will do the job.*

US Robotics

BABT Approved

US Robotics Sportster Modems:
Mac 'n' Fax - 14400bps **£119** (£140)
288 V34 - 28800bps **£179** (£210)

Supra 288 Fax Modem
Alpha numeric display, fast 28800 bps, cables, full manual. NON BABT. **£189** (£222)



FREE... Apple e-World Kit with ALL GH Modems!!!

NEW... BABT Approved **APPLE Geoport VERSION 2 Telecom Adaptor**
Geoport provides a fully featured Fax Modem with send/receive capabilities operating at up to 14400 bps on PowerMacs or any AV Mac. Includes OCR software and is able to access Telephone Management tools. **£94** (£111)
See Pg2 for details of the Apple Communication Solution for 630/5200/5300/6200 Macs

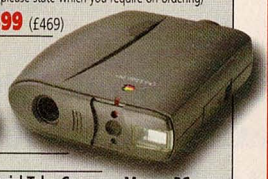
MOTOROLA

Motorola 3400 - V34, 28800bps Professional Solution
Communication Software, Easy Install animated Mac software, Fax Software, FREE Compuserve 1 Month Access, Manual, Auto Selects fastest available line speed, Online Help Screen, Two Year Warranty - **MAC USER BEST BUY, July '95!**
Motorola 3400 Pro **£179** (£210)

BABT Approved

Global Village TelePort Platinum 28800bps
£249 (£293)
Phone GH for details of other Global Village Modems in this great range at great prices

NEW... APPLE QUICKTAKE 150 Camera for Mac or PC
New higher spec. version of the popular QuickTake, the 150 now boasts extra memory for more stored images and a CLOSE UP LENS attachment.
QuickTake 150 Mac or PC (please state which you require on ordering) **£399** (£469)

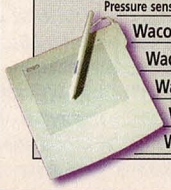


New Product

Connector Kit For 2nd Mac or PC) **£48** (£57)

STANDARD APPLE QuickTake Camera - Mac or PC
Ideal for Multimedia Images/Estate Agents etc. (please state Mac/PC)
QuickTake Camera **£229** (£269) Carrycase **£40** (£47)

WACOM GRAPHICS TABLET
Pressure sensitive art pad - great for your designs NEW LOWER PRICES!!!



Wacom Artpad	**£140**	(£165)
Wacom Artpad & Dabbler	**£169**	(£199)
Wacom A5 Tablet	**£269**	(£316)
Wacom A4 Tablet	**£379**	(£445)
Wacom A3 Tablet	**£595**	(£700)

APPLE DESIGN SPEAKERS II
Simply plug into your Mac for some great stereo sounds. Attractively styled to match your Macintosh design.

Design Speakers II **£51** (£60)

YOU CAN HAVE ABSOLUTE CONFIDENCE IN GH!
GH is a family business established in 1955, supplying computers since 1982.
With approaching £40 million worth of units sold, and almost a quarter of a million happy customers, our trading and service records are second to none!

For example - our after sales care even includes FREE collection and return by our Apple Authorised Service Department of major units purchased by mail order, should it be required.
Ask other dealers to explain their back up procedures and make sure that it's what you would expect!

Why don't YOU try us and find out why WE are the UK's Favourite Apple Reseller?

Giles Harwood - Managing Director

FAX FOR A... **QUICKQUOTE 01-773 831040**

ORDER HOTLINE... 01-773-836781

ALL Credit Cards are Security Checked!

"...at GH, we'll look after you..."

SERVICE, SUPPORT and WARRANTIES: GH is one of Apple UK's selected Authorised Service Providers (not all Resellers have this accreditation). Our standard One Year GH Gold Warranty gives you a comprehensive backup. GH also offer a range of options for business and professional users which may be essential for systems in high dependency/constant use.

BY PHONE: We'll help with any queries and, when you're ready to order we accept AMEX, Visa, Mastercard, Access, Switch, Connect, Delta and Lombard Creditcharge (most 'store cards' are Lombard Creditcharge and we happily accept them).

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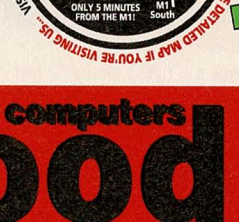

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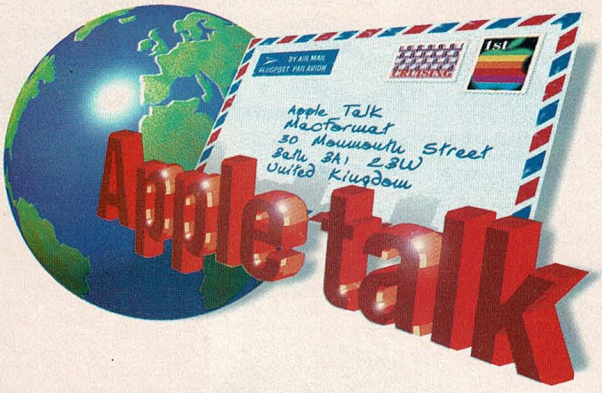


Tell the world what you think and get an exclusive binder to boot! Write to Alex Summersby, AppleTalk, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

Comments, questions, complaints – we've got the lot. And in return, we're giving away MACFORMAT binders. What do you have to say to *that* then?

IT'S A DEAL!

Every letter and postcard published on these pages wins a MACFORMAT binder. If, however, you prefer a slightly more conventional mode of exchange, you can turn to page 123 and order your own binder for money. You know, coin of the realm. Better for the economy than barter, we're told...

Life's unfair

APPLE UPGRADES

I was not disappointed at all when, two weeks after I bought my Mac LC and Stylewriter I printer, they were discontinued. I could not at that time afford any more. The Mac is still going strong two and a half years later, which is perhaps not surprising. My original Mac, a 128K jobbie, is doing likewise, and in the intervening time I have benefited from a superb quality of image and output. During my time owning Macs, I estimate that close on a million words have passed into finished articles, essays and manuals.

The point of this is that I get a little annoyed when I read of people like Chris Stephens in MACFORMAT 27 whingeing about a perfectly good machine which performs superbly, but is superseded a couple of weeks after he bought it. I wish I could afford one! If he decides to throw it away, here is a very willing recipient. Think about those of us who had the original Mac. Mine, along with the Stylewriter, cost close on £3,000 including VAT, and that was in 1984.

This type of complaint is not about any computer company who bring out a new improved model, but about the unfairness of life itself.

John Colby
via FutureNet

Mind you, life has been getting unfairer at a great rate these last couple of years. In MACFORMAT's first issue, back in February 1993, the hot new machine was the LCIII, with 4Mb of RAM and a 40Mb hard disk for just £1,462. Top of the range was a Quadra 800 8/500 with CD-ROM drive at a mere £5,869. Today you can get a Mac with performance comparable to the Quadra (the Performa 630) for well under a grand, and your £5,800 will buy you a blistering PowerMac 9500/132 with 16Mb of RAM and a two gigabyte hard drive.

Living dangerously?

DEMOS ON THE COVER CD

Much as I love the MACFORMAT CD every issue, one thing makes my blood boil – commercially produced demos that either:

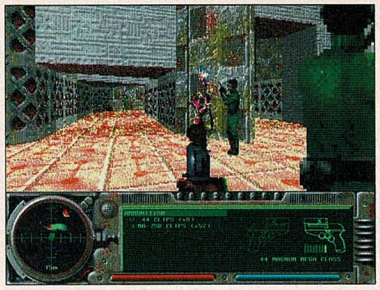
(a) crash your machine and point-blank refuse to run
(b) show you what they can do, then refuse to let you try it
(c) are so grindingly boring that you want to quit immediately
(d) refuse to quit and then crash your Mac.

When I get my CD every month I don't even look at the commercial demos, games or otherwise. I just get straight into Readers' Corner, the floppy contents and the shareware. More interesting, less dangerous!

Come on, all you commercial dudes out there. You want us to buy your products, not put us off! I have a Performa 475 that normally complains about very little and just gets on with the job – until the demos arrive!

Alison Boots
Herve, Belgium

That's assuming, of course, that it's only the demos and not the full programs that are unstable, 'grindingly boring' or liable to crash your Mac. At least you're getting a fair taste of the real thing...



We rated *Marathon* at a huge 94% – will *Marathon 2* be even better? Watch for news next issue!

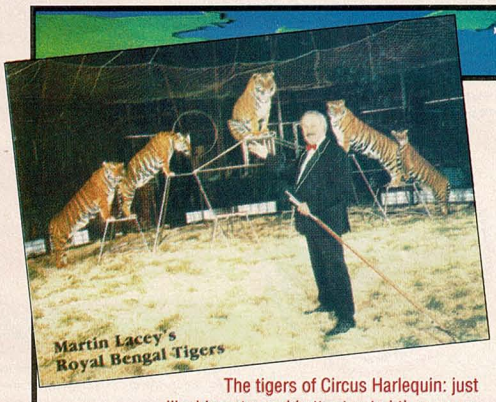
Victim of the hype

BUYING ADVICE?

Like many, I fell victim to the hype and found myself caught up in the hysteria only to find out, too late, that the final product was something that had been done by others, earlier and in a far superior manner. Windows 95? No, I'm talking about *Doom 2* for the Mac, which came out here in Canada last month.

What was all the fuss about? This is something Mac owners have been drooling over for months without realising that they already had a much better version in the Phform of *Marathon*, and the even better *Dark Forces*. Both leave *Doom 2* in last place in terms of graphics, gameplay and

THE BIG TOP UNDER THE SPOTLIGHT?



The tigers of Circus Harlequin: just like big pets, and better treated than many.

I am sadly writing to complain about the review of the *Circus* CD-ROM in MACFORMAT 26 – not the review itself, but your choice of words in the introduction: 'There's no need to worry about mistreated animals'.

How do you know the animals in circuses are mistreated? Who told you? Did you see something? I have been involved with Circus Harlequin since its conception in 1993 and our record of animal husbandry, housing, feeding and care is second to none.

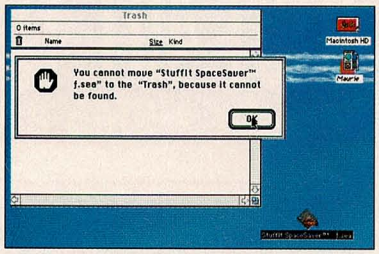
We employ the exact same training methods as Police horse and dog handlers, as well as trainers of guide dogs, sniffer dogs, even your cat and dog at home – that is, lots of patience, praise and goodies. We only ask the animals to do what they would naturally do, walk, stand, sit, roll and jump, only in an organised environment.

Our animals are regularly inspected by the RSPCA as well as by David Taylor, the well-known vet on whom the BBC's *One by One* series was based. Mr Taylor is the country's (if not the world's) foremost authority on wild and exotic animals, and if he is not completely satisfied with his inspection of our circus (which is mandatory as members of the Association of Circus Proprietors) then we will not be issued with our certificate and we will be unable to trade. Since 1932, when the Association of Circus Proprietors was formed, there has never been a prosecution brought against any member circus, its staff or trainers for animal cruelty. It is a record we are very proud of, particularly when you think that the courts are daily full of people who have mistreated their animals.

Circus Harlequin is a brand new concept in British circus. We have won awards for our animal husbandry methods as well as best wild animal act last year, and I take serious offence when ill informed people suggest that we are mistreating our animals.

Larry de Witt
Circus Harlequin
Spilsby, Lincolnshire

We did not intend to imply that any circuses actually mistreat their animals, only that some people worry that this is the case and possibly shy away from circuses as a result of that worry. We are happy to set the record straight.



Silly things the Mac says – part 1 of a series of at least 2,000. What's *your* favourite odd message?

storyline (which is completely non-existent in *Doom*). With the impending arrival of *Marathon 2* (a demo of which was placed on a CD for those attending the Macworld show in Boston, and believe me, it is *awesome*), my advice to those who haven't committed the folly of ordering or purchasing this also-ran is... don't!

Suhail Akhtar
Toronto, Canada

We turned our own Derek (the Dino) Smith – master of Marathon, *devotee of* Dark Forces – *loose on* Doom 2. *For his views, see page 124.*

Silly things the Mac says

SUGGESTION BOX

Could you devote a page of MACFORMAT or put a folder on the CD-ROM to show the silly messages people get from their Macs? Mine is attached.

Gary Minato
Australia, via FutureNet

Get those screenshots flowing in! Just hit ***[command] [shift] 3*** *to grab your screen and send the resulting PICT to us on disk or via e-mail, marked 'Silly Things'.*

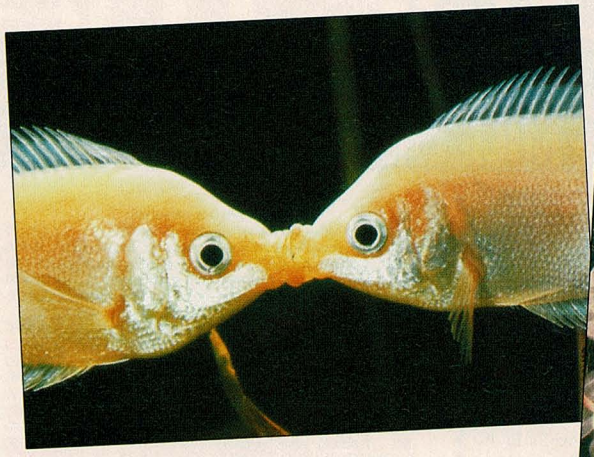
And another thing...

COVER CD PROBLEMS

MACFORMAT 29's Cover CD doesn't work on my PowerMac 7100 – either the CD icon doesn't appear on the Desktop, or else it takes as long as 20 minutes to open the main window.

Bruce Davies
London NW6 1QD

We've managed to ascertain that there was a minor fault in the duplication of the MACFORMAT *29 Cover CD, leading to a problem with something called 'bio-fringence' – in a nutshell, some CD drives' lasers get scattered and can't pick up data properly. The problem seems worst with CD drives made by Matsushita fitted in some Performa 630s and PowerMac 7100s (but not all – our test machines had no trouble with them).* SCSI Probe *can confirm whether you have one of these drives, but in any case if you have this problem with issue 29's CD, there's no need to phone us – please return your CD to the address on page 15 and we will be happy to send you a working replacement.*



Two more MACFORMAT binder winners: 'Fish Kiss' (just right for an issue featuring the *Sucking Fish Filters*), sent in by Frank Odds of Schilde, Belgium; and a different kind of image manipulation – all image, no substance – from Jane Nixon of Walton-on-Thames. Remember, whenever you write to MACFORMAT or enter a competition, an eye-catching postcard could win *you* a binder too!

To change case (or not)

DTP

In MACFORMAT 28, Lee Oswald complains (among other things) about *Quark's* inability to convert caps to lower case via the measurements palette. It should be remembered that independent kerning values have been set to default for pairs of both caps, lower case and a mix of caps and lower case. Any sensitive typesetter/typographer will have further customised these values and added to them. They are not interchangeable.

So, for example, the pairs To, Ta, Te when highlighted and converted to caps via the measurements palette will result in ugly inter-character spacing (TO, TA, TE).

I have not installed *ChangeCase*, so perhaps it's unfair to assume that the same problem will occur in reverse. Nevertheless, I believe that the inconvenience of re-keying caps in lower case is outweighed by the aesthetically pleasing end product.

I rest my case. (Ouch, sorry!)

Alan Butcher
Leatherhead, Surrey

Keeping them out

SECURITY ADVICE NEEDED

I have recently bought a Performa 460 for use at school, and it has become a victim of its own success – there seem to be a lot of people who like playing games on it, and there is nothing I can do to stop them simply turning it on and using it when I am away. What I need is a simple Extension that will only permit the Mac to start up if the correct password has been typed in (and can't be turned off by starting up with the **[shift]** key held down). Is there such a program?

Robert Goodenough
Wellington College, Berkshire

There certainly is. You could try MacPrefect *(£41.13, or £32.90 for education users, from Hi Resolution, 01892 891291),* LockSmith *(£41.13, also from Hi Resolution),* DiskGuard *(around £104 from Softline, 0181 401 1234), or* Empower 2 *(£280, which includes an encryption facility, from Amtech International, 0117 971 0588). All these get around the problem of starting without Extensions in some clever way or other, and we reviewed them in* MACFORMAT *22 – if you want the full low-down, order a copy from our back issues service on page 123.* **MF**

HOW TO GET IN TOUCH WITH MACFORMAT

■ Our address for letters is on page 40 – the shorter your letter, the better its chances of being printed. Longer letters may be published in our regular 'Talking Point' section (on page 143 this month). If you'd like a letter included in 'Readers' Corner' on our CD-ROM, make sure it contains no defamation or obscenity, then send it in as a *TeachText* document on a disk marked 'MACFORMAT Readers' Corner'. Include your name and address, and note that we can't return your disk.

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■ The legal bit, because we care (or, at any rate, our lawyers do): all correspondence sent to our editorial address (by mail or any electronic means) will be considered for publication unless you specifically state otherwise, and we reserve the right to edit published letters for reasons of space, clarity or legality.

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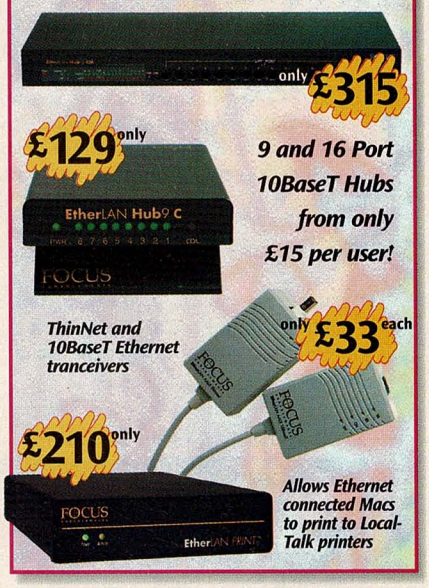

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ACPC	Access PC 3.0 (read/write PC floppys from your Mac)	£65.00
DSMT	DOS Mounter Plus (read/write PC floppys from your Mac)	£55.00
MLPT	MacLink Pro (best Mac/PC link with100's translators)	£110.00
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INTERNET

BYPR	BeyondPress (Web Page creator plug in for Xpress)	£485.00
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NTSCB	NetScape Navigator (best browser, inc manuals)	£50.00
STCH	Snatcher (easy to use Internet file transfer software)	£35.00
INET	Registration Kit (Internet dial up, email,Web, FTP)	£25.00
BK5010	Internet Starter Kit (the best book)	£27.50
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ClarisWorks 4.0

This new version of the best selling integrated software package offers over 100 new features including StyleSheets, Expert Assistance, enhanced mail merge, database list view, drag and drop libraries with 500 images and much more - to add to its existing wondrous array of abilities.

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BTCHC **Battle Chess** (full colour animated Chess Game) £35.00
BTIME **Buried in Time** (sequel to Journeyman Project) £29.00
BMUG **BMUG** (huge collection of public domain and shareware) £29.00
CDRT **CD ROM Toolkit** (speeds up CD access) £59.00
DDNC **Daedalus Encounter (3 CD sci-fi adventure)** **£34.00**
DKFCD **Dark Forces (brilliant game based on Star Wars)** **£35.00**
GODCD **How God Makes God** (ingeneous spiritual guide) £25.00
IRNB **Iron Helix & Dark Seed (fantastic space/adventure bundle) £25.00**
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MRTCD **Marathon** (the best selling game even better on CD) £39.00
MYST **MYST** (magical mystery adventure) £35.00
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THMP **Theme Park** (create the best theme park ever!!) £29.00
SPTCD **This is Spinal Tap** (the movie and more on 2 CDs) £25.00
JMAN **The Journeyman Project** (amazing 3D adventure) £32.00
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MAGCD **Art Gallery** (Microsoft's tour of the National) £39.00
B9CD **Beethovens 9th** (the symphony and all about it) £39.00
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LLVCD **Le Louvre (tour the famous Paris Gallery)** **£35.00**
MICD **Musical Instruments** (Microsoft's excellent entry) £39.00
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STTM **Star Trek Interactive Tech Manual** (tour de Enterprise) ... £29.00
TLFA **Time/Life Astrology** (astrology primer) £19.00
MWGCD **Wine Guide (Microsoft's, er, well... guide to wine)** **£35.00**

EDUCATIONAL

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ARTT **Arthur's Teacher Trouble** (interactive story book) £29.00
ARTB **Arthur's Birthday** (more Arthur) £29.00
CIRCD **Circus (learn while playing with clowns and animals)** **£29.00**
DINO **Dinosaurs** (the "must have" CD of the year) £45.00
GRME **Grandma and Me** (delightful kids story) £29.00
FNAR **Fine Artist** (great fun paint program) £29.00
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KDMH **KidsMath** (takes kids from counting to arithmetic) £29.00
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TYEN **Typing Instructor** (good training from basics to touch) ... £25.00
VYGR **Voyager Astronomy** (fascinating desktop planetarium) .. £105.00
WIWD **Where in World is Carmen DeLuxe** (geography based) ... £29.00

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HYPC **HyperCard 2.3** (new version, more power) £95.00
CDWB **Metrowerks Code Warrior Bronze** v7 (680x0 compiler) £95.00
CDWG **Metrowerks Code Warrior Gold** v7 (PowerMac compiler) ... £265.00
ZCP **Symantec C++** (best object oriented programming tool) £295.00
SPCD **SuperCard 2.5** (more powerful than HyperCard) £389.00
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FTF **First Things First** (brilliant alarms, reminders, to do's) £25.00
HDTKP **Hard Disk Toolkit** (Personal Edition) £59.00
HDTK **Hard Disk Toolkit** (the best formatter and checker) £125.00
MCTA **MacTools Pro 4.0** (disk safety and protection utility) £79.00
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SFDL **Stuffit DeLuxe** (famous file compression program) £59.00
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REDX **Redux Deluxe 2.51** (powerful floppy backup) £49.00
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4) FLSM ✔**Microsoft Flight Simulator** (realistic, accurate) £35.00
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15) CRQ2 ✔**Crystal Quest 2** (Britain's favourite game) £22.00
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FSHB ✔**Flashback (Nintendo like adventure shoot-em-up)** **£25.00**
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TRZL ✔**Triazzle (brain teaser from Berkeley Systems)** **£19.00**

KEY ✔ works on most Macs, ➢ Colour Macs only.

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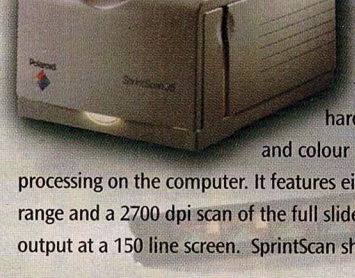

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PowerPC PowerPC PowerPC

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from only £999

PowerPC PowerPC PowerPC

PERFORMA 5200 8/500/CD

Based around the brand new Power PC 603 chip running at 75MHz, the 5200 combines the CPU and a 15" multi-scan monitor in one housing. It has a built-in quad speed CD ROM drive and the (optional) TV and video capabilities of the Performa 630. With its 256k cache memory, it is equivalent in speed to a Power Mac 6100 for a lot less. Includes ClarisWorks and optional software bundle.

from £1275

PowerPC PowerPC PowerPC

POWER MAC 9500/120 16/1Gb/CD/Video Card

£3725

£4375

POWER MAC 9500/132 16/2Gb/CD

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630D **Performa 630 4/500 & Performa Display** ClarisWorks 2.1, PC Exchange £795.00

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630S **Performa 630Plus 8/500/CD/TV/Video & 15" Multiple Scan Display** & software £1145.00

630H **Performa 630 12/500/CD/DOS & 15" Multiple Scan Display** £1395.00

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5200E **Performa 5200Plus 8/800/CD/TV/Modem** & software £1525.00

5300A **Performa 5300Plus 16/1200/CD/TV MPEG/Modem** & software £2045.00

6200H **Performa 6200 8/800/CD/Modem & 15" Multiple Scan Display** £1395.00

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all Performas include an AppleDesign Keyboard

"& software" refers to: PC Exchange, ClarisWorks, Typing Teacher, Clip Art collections, Spectre Supreme, Groliers Encyclopaedia, Guinness disk of Records, Microsoft Dinosaurs, San Diego Zoo and three other CD ROMS.

PERFORMA CPUs

630A Performa 630 4/500 ..... £645.00
630R Performa 630 12/500/DOS Card £1249.00
5200A Performa 5200 8/500/CD £1225.00

all the above include genuine Apple keyboard, At Ease, ClarisWorks, PC Exchange and training materials.

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AW91A AWS 9150 24/4000/CD/DAT & AppleShare 4.1 ..... £7395.00
AWS9B AWS 95 32/2000/256/DAT & AppleShare Pro £6795.00
AWS9C AWS 95 ARA 16 Port Server £5495.00

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P19C PowerBook 190cs 4/500 ..... £1455.00
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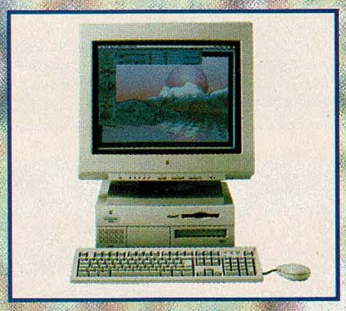

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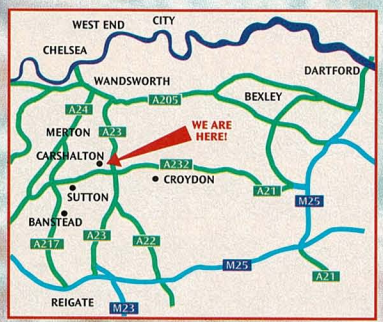

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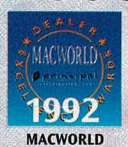

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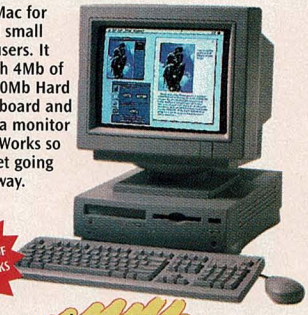

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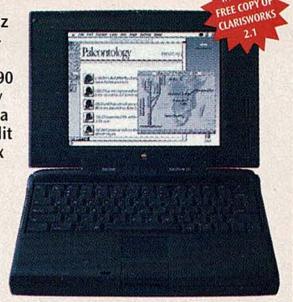

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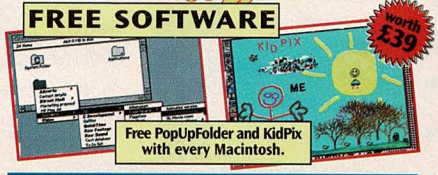

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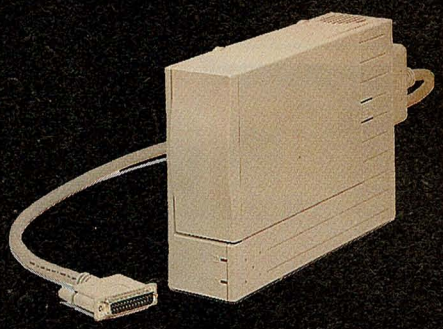

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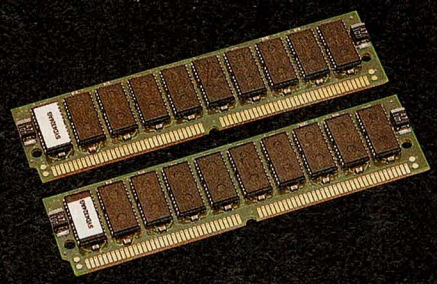

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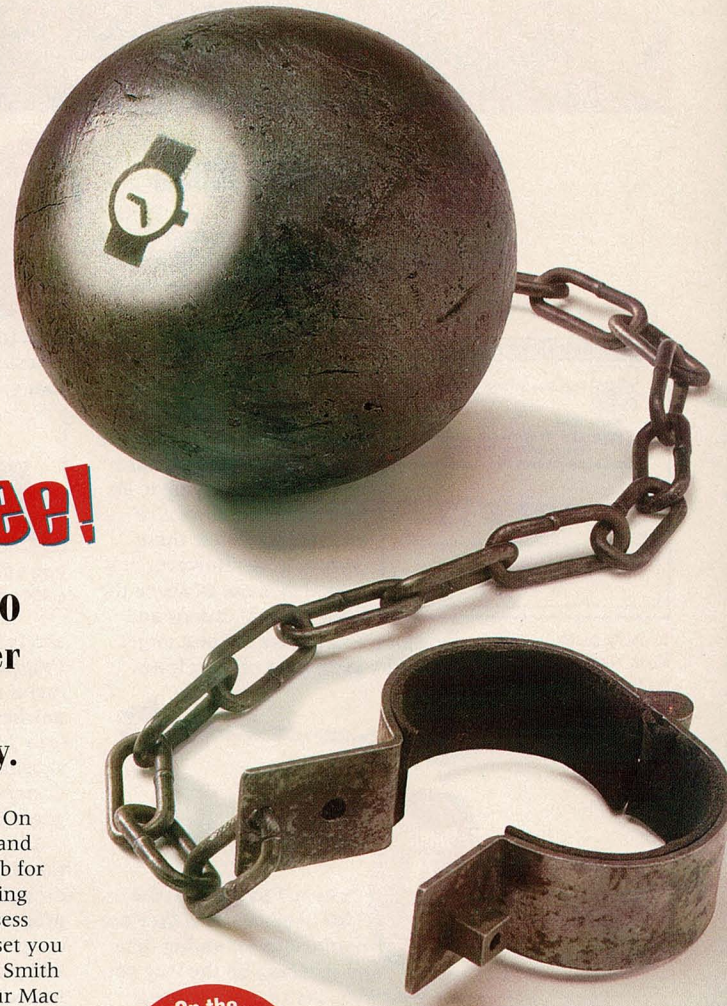


Everybody wants a faster Mac – here's 50 ways to get one! To kick off, we have over 35 tips that will make you and your Mac work faster – and won't cost you a penny.

Today's PowerMacs are the fastest personal computers ever made – and that's a fact. But no matter which Mac you've got, even if it's a top-of-the-range model, at some time or other you're bound to wish it was quicker. Whether it's 3D graphics rendering or just copying large files, sometimes your Mac just won't feel fast enough.

Over the next 12 pages, we show you how to speed up your Mac. On page 54 we look at accelerators and other add-ons that can do the job for under £150, including the amazing *Speed Doubler*. On page 58 we assess high-powered options that will set you back over £150. But first, Derek Smith has 37 tips on how to set up your Mac to run faster and get more done. Some are simple, some devious, but together they'll help you beat the clock!

On the Cover CD – 24 utilities to help speed up your Mac! See page 118

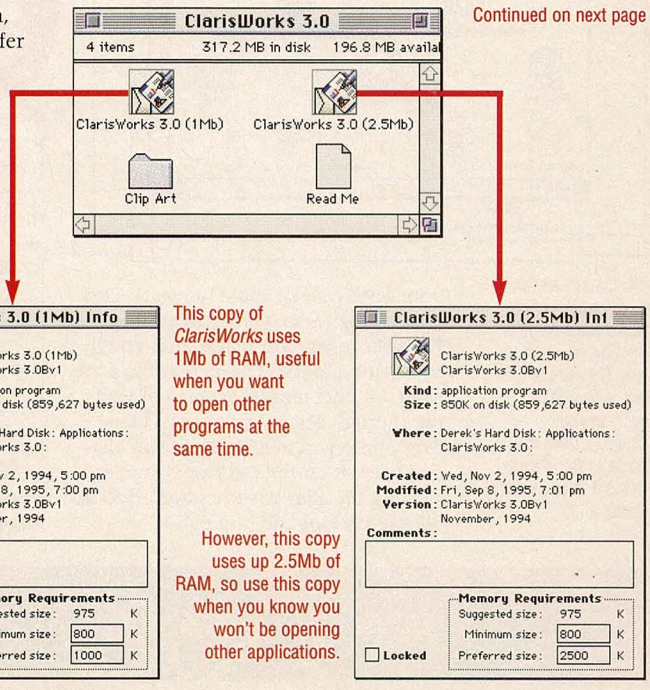
Number 1 RAM allocation

Whenever you launch a program, it grabs a piece of your Mac's memory (called RAM), and uses that memory to carry out all its jobs. The more memory it has, the faster it can work. The problem is that you only have a set amount of RAM to share among your programs, and if you give each a large portion, you won't be able to run two at once. To see how much RAM you have, and how much is spare at any time, select **About This Macintosh** from the **Apple** menu.

Mac applications are very polite, and won't take RAM until it's offered. Click once on the icon of an application, then choose **Get Info** from the **File** menu (or press **[command] I**). You will see three figures towards the bottom of the window. The first is the amount of RAM the manufacturer suggests you give to the program, the next is the minimum that you are allowing the application to open in, and the last is the amount you prefer the application to have.

A good idea is to duplicate an application, then leave one with the default settings, but allocate a larger preferred memory size to the second. In the future, you can then choose which one to launch, depending on whether you intend to open other programs at the same time or not. If you know you only want to use a single program in your current session, then have a copy that takes the majority of the RAM all to itself. However, always try to leave about 500K free for things like the PrintMonitor to use.

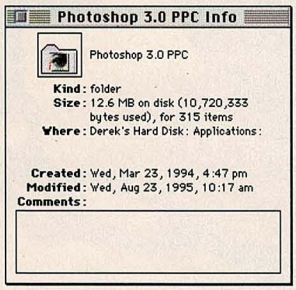
Continued on next page


ClarisWorks 3.0
4 items
317.2 MB in disk
196.8 MB availa
ClarisWorks 3.0 (1Mb)
ClarisWorks 3.0 (2.5Mb)
Clip Art
Read Me
ClarisWorks 3.0 (1Mb) Info
ClarisWorks 3.0 (1Mb)
ClarisWorks 3.0Bv1
Kind: application program
Size: 850K on disk (859,627 bytes used)
Where: Derek's Hard Disk: Applications: ClarisWorks 3.0:
Created: Wed, Nov 2, 1994, 5:00 pm
Modified: Fri, Sep 8, 1995, 7:00 pm
Version: ClarisWorks 3.0Bv1 November, 1994
Comments:
Memory Requirements
Suggested size: 975 K
Minimum size: 800 K
Preferred size: 1000 K
Locked
This copy of ClarisWorks uses 1Mb of RAM, useful when you want to open other programs at the same time.
However, this copy uses up 2.5Mb of RAM, so use this copy when you know you won't be opening other applications.
ClarisWorks 3.0 (2.5Mb) Inf
ClarisWorks 3.0 (2.5Mb)
ClarisWorks 3.0Bv1
Kind: application program
Size: 850K on disk (859,627 bytes used)
Where: Derek's Hard Disk: Applications: ClarisWorks 3.0:
Created: Wed, Nov 2, 1994, 5:00 pm
Modified: Fri, Sep 8, 1995, 7:01 pm
Version: ClarisWorks 3.0Bv1 November, 1994
Comments:
Memory Requirements
Suggested size: 975 K
Minimum size: 800 K
Preferred size: 2500 K
Locked

Beat the Clock!

Number 2 Custom Icons

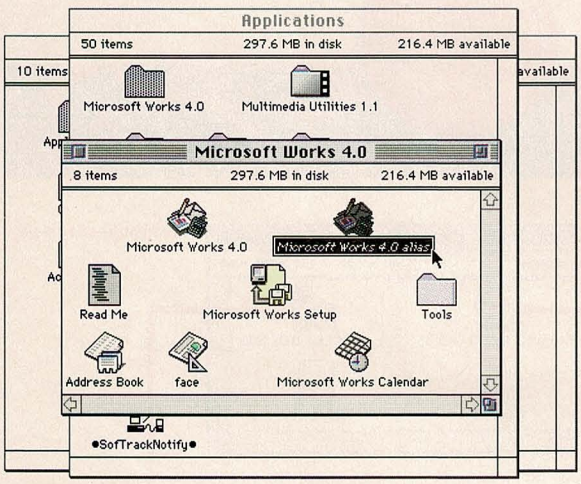
Fancy icons can help to add character to your Mac, which is why we use them on our Cover CD and floppy disk. However, beauty always has a price. Every time you open a window containing a custom icon, your Mac has to retrieve the tiny graphic from the hard disk before displaying it. To keep your windows nice and snappy, delete these custom icons. However, it is a good idea not to delete the icons for applications and their files. Folders are the best target, so start by getting rid of their icons.


Photoshop 3.0 PPC Info
Photoshop 3.0 PPC
Kind: folder
Size: 12.6 MB on disk (10,720,333 bytes used), for 315 items
Where: Derek's Hard Disk: Applications:
Created: Wed, Mar 23, 1994, 4:47 pm
Modified: Wed, Aug 23, 1995, 10:17 am
Comments:

To delete custom icons, click once on the folder, select **Get Info** from the **File** menu, press **[tab]**, then press **[delete]**.

Number 3 Aliases

System 7 introduced the idea of aliases, and they are marvellous for saving time and speeding up the way you use your Mac. Let's say you have a well organised folder structure on your hard disk (it could happen). This enables logical and efficient storing of files. However, you realise that you'll be wanting to use a particular file a lot over the next month. Instead of wading through several layers of folders every time you need it, create an alias and leave it on the Desktop. Double-clicking the alias has the same effect as double-clicking the original.



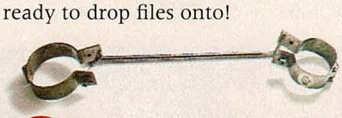
Click once on a file or program, choose **Make Alias** from the **File** menu, then drag the alias to a convenient spot, such as your Desktop. Click the name of the alias to select it, if you want to edit it.

Number 4 Drag and drop

Let's assume you regularly use *GraphicConverter* to open *Photoshop* files from your friend's Mac. If you double-click the *Photoshop* file on your Mac, you simply get a message telling you that you don't have *Photoshop*. To access the files, you could load *GraphicConverter*, then go to the **File** menu and choose **Open**. But the quickest and most convenient method is to drag the file onto the icon of *GraphicConverter*, then let go. *GraphicConverter* will load up, then open the graphic file automatically.

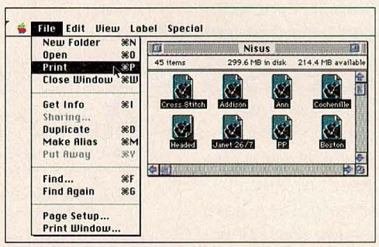
Drag a file onto the icon of a program to load it quickly. It's easy when you know how.

You can use the same technique on many files – you could drag a text file onto *ClarisWorks*, for example. If the program you are dragging to is capable of opening that particular file, its icon will turn black when the file is positioned over the program. A good idea is to create aliases of your Applications and keep them on your Desktop, ready to drop files onto!



Number 5 Desktop printing

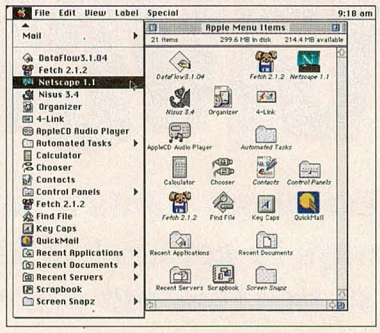
If you want to print some files, but you don't have them open, you can print from the Desktop. Highlight the files you wish to print and select **Print** from the **File** menu (or press **[command] P**). The Mac loads the appropriate program, prints the files, then automatically quits the program.



If all you want to do is print a file, you can do it all with one command from the Desktop.

Number 6 Apple menu

Under System 7, you can put virtually anything you like in the **Apple** menu, giving you quick access to it no matter what program you're using. Inside your System Folder, you'll find a folder named Apple Menu Items.

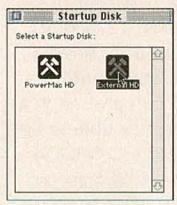


Here you can see that all the items that can be found in the Apple Menu Items folder do indeed appear in the **Apple** menu itself.

Whatever item you put in there will instantly appear in the **Apple** menu, so you could put aliases of your most commonly used files and programs in there. Items in this menu are listed alphabetically, so if you insert a space at the start of the name of an item, it will appear at the top of the menu.

Number 7 Hard drives

If you decide to buy a second hard drive for your Mac, remember that the larger the drive, the faster it usually works. So not only should you buy the largest hard drive you can afford, it's also a good idea to use the larger one as the startup disk, unless you enjoy watching icons filling up the bottom of your screen. Use the System Installer disks to install a System Folder on your new disk, or



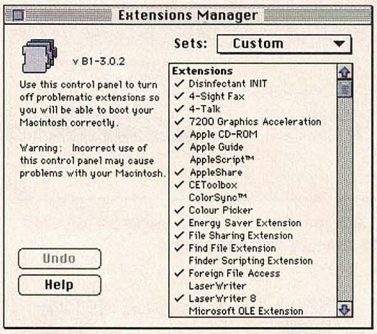
Make sure that you use your fastest hard drive as the startup disk. If you are unsure about the speed of your drives, use the shareware program *Speedometer* to find out.

Beat the Clock!

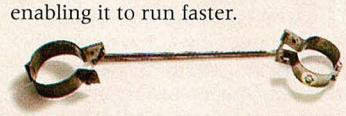
drag your existing one across, then use the Startup Disk Control Panel to select it as the disk to boot from. Also remember that if you use virtual memory, you can select which disk to use from the Memory Control Panel, so select your fastest disk.

Number 8 Limit Extensions

Most Extensions, and many Control Panels, slow the Mac down by a very small amount. Although your Mac can do many things at once, it only has one processor, so each task slows the others down. Many Extensions borrow processor time – for example, a screen saver needs to continually monitor how long the Mac has been idle for. Discard as many unnecessary Extensions and Control Panels as possible, and your Mac will have fewer simultaneous tasks to do, enabling it to run faster.



If you have System 7.5, you can use the Extensions Manager to turn off Extensions you don't need, although you'll probably find that it doesn't list them all. It's difficult like that.

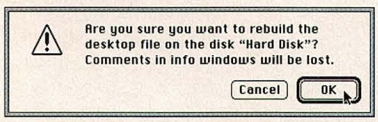


Number 9 DiskLight

DiskLight is a Control Panel that comes as part of *Norton Utilities*. Its job is to flash an icon in the menu bar every time the hard drive is accessed. Although this can be useful, it will slow disk access down slightly. There are lots of similar shareware utilities, which add useful but not really essential features – for peak performance, don't use them.

Number 10 Rebuild Desktop

On every disk is an invisible file called the Desktop, which keeps track of files' locations and icons. When you delete files, their data isn't always deleted from the Desktop file. Rebuild the Desktop file about once a month to keep it slim, healthy and happy. To do this, hold down **[command]** and **[option]** on startup.



Rebuilding your Desktop ensures that you keep time spent accessing the disk at its optimum.

Number 11 Shortcuts

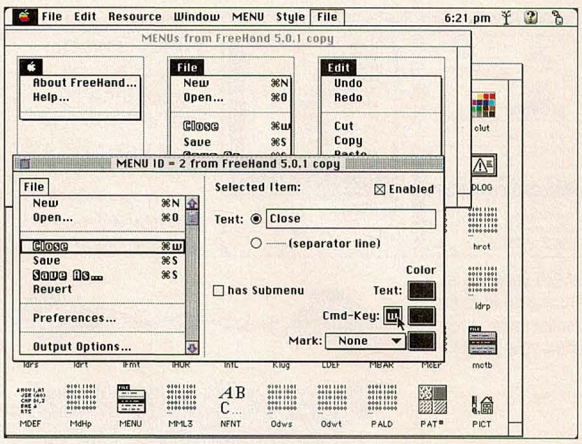
Most programs (and indeed the Desktop) make use of keyboard shortcuts, which enable you to select options from pull-down menus much more quickly than using the mouse. If a menu option has ⌘ and **P** next to it, press and hold down the **[command]** key, then press the **P**. This has the same effect as selecting the option from the menu with the mouse. You may need to press other keys as well:

⇧ means the **[shift]** key,
⌥ means **[option]** or **[alt]**, and
⌃ means the key marked **[control]**.

Number 12 ResEdit

The problem with keyboard shortcuts is that not all menu options have them, or the same shortcut does two totally different things in different applications, meaning you need to remember all their subtleties. A remedy is to use *ResEdit*, Apple's free hacking program. It's not suitable for beginners, however, and even confident users should always work on a backup of an application.

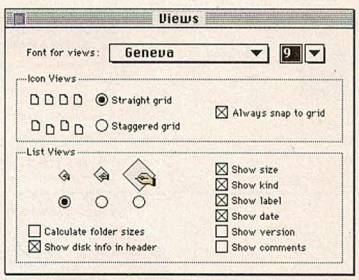
Using *ResEdit*, open the program and double-click the **Menu** resource. Double-click the menu you wish to change, then the particular command. In the Cmd-Key box in the lower right corner, type the key combination you wish to allocate to that option, but there's no need to press the **[command]** key. For instance, if you press **[option] S**, then you have allocated the keyboard shortcut of **[command] [option] S** to that menu item.



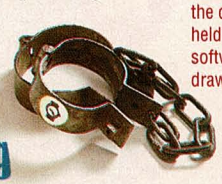
Whenever you press **[command] W** in *FreeHand*, the window zooms rather than closing, unlike almost every other application, so here we've changed it using *ResEdit*.

Number 13 Views

From the Views Control Panel, make sure that 'Calculate folder sizes' is turned off – it slows down window redraw dramatically. 'Show disk info in header' has far less effect on the speed of windows, and its benefits outweigh any slight speed penalty. Whether you like 'Snap to grid' turned on or off, you can temporarily toggle its effect by holding down the **[command]** key when you drag an icon on the Desktop.



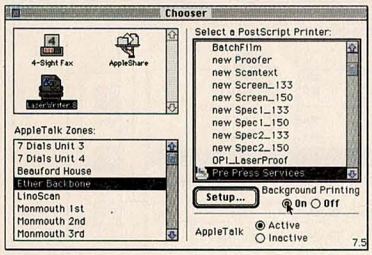
It's a good idea to leave your view font on Geneva 9pt because the data for that font is held in the System software, and therefore draws quickly.



Number 14 Printing

When printing, you don't need to sit and do nothing while you wait for the printer to cough out your bit of paper, you know. If you turn on background printing from the Chooser

Continued on next page

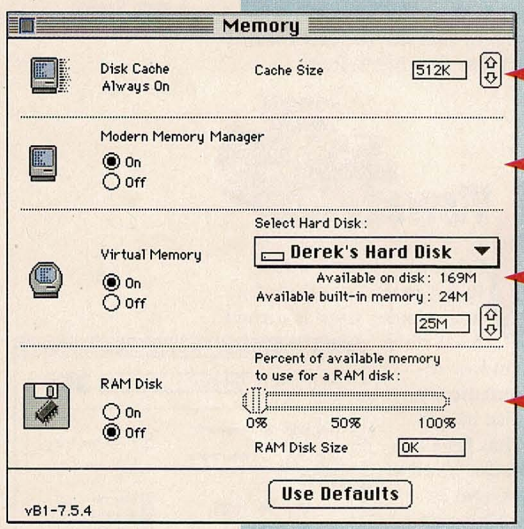


Switch Background Printing on from the Chooser when you select your printer.

window, the Mac quickly saves the file that is to be printed onto your hard disk, then returns control of the Mac to you, while it quietly gets on with the printing process in the background.

Memory Control Panel

Setting up your Memory Control Panel for optimum performance can be tricky, but it plays a major part in the speed of your Mac. We'll take a look at each part separately, although not all Macs will have all the options.



Number 15 RAM Disk

Since RAM is faster than a hard disk, why not consider a disk made totally of RAM – the opposite of virtual memory? By turning this option on you can use some of your precious RAM to create such a disk. Files and programs stored on a RAM disk will operate faster than if they were on a hard disk. When you restart your Mac, everything on the RAM disk is copied onto the hard disk, then copied back again on startup. The disadvantage (besides using up your RAM) is that if you save a file to the RAM disk and your Mac later crashes, you'll lose it.

Number 16 Disk Cache

Although hard drives are quick, RAM is much quicker. So what your Mac can do is keep the most recently read data from the hard disk stored in RAM. That way, if the data is needed again, it can be accessed very quickly. This option enables you to control how much of your total RAM is allocated to cache. The more you allocate, the faster your Mac will run, but the less RAM your programs will have to use. Finding the best balance is tricky, but start by allocating about 32K for every megabyte of RAM you have, up to a maximum of about 512K.

Number 17 Modern Memory Manager

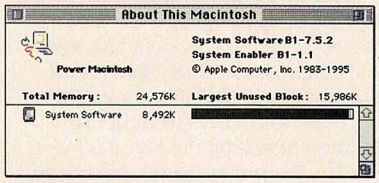
PowerMacs have a new memory manager which can speed up some memory tasks, such as Disk Cache, by around 10%. However, you have the option of turning it off because some older programs don't like it. If you experience regular unexplained crashes, particularly Type 11, then try turning this off and see if it helps.

Number 18 Virtual memory

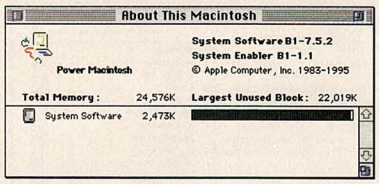
If you need more RAM, your Mac can use the hard disk as memory. Unfortunately the hard disk is much slower than real RAM, so although you will have more memory and be able to open more programs, you'll suffer a noticeable degradation in their performance. The rule is, on a non-PowerMac machine turn this off when you don't need it. On a PowerMac, for a bizarre reason, it can be advantageous to leave it switched on permanently because programs (including the Finder) require significantly less RAM to load. If you do have it switched on, reduce the amount of memory to a minimum, 1Mb more than the real amount of RAM.

Number 19 Extensions off

If you are starting your Mac to write a simple letter or play a game, do you need any Extensions and Control Panels at all? If not, then hold down **[shift]** during startup to turn them all off. Your Mac will start up much more quickly because it doesn't need to load Extensions, and will run faster too because they are not competing for processor time. You should also notice a marked improvement in the time needed to copy files, and have lots more spare RAM.



This is how much RAM this system uses with Extensions turned on...



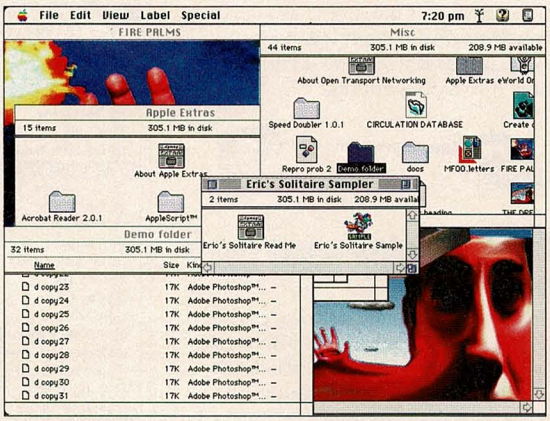
...and with them turned off. Maybe we can make do without Extensions today.

Number 20 Close windows

Every open window has to be kept updated. For instance, if you have a graphics program in the background with an open picture and a word processor running in the foreground, every time you move or close a window the graphic in the background needs to be redrawn. The same is true if you leave lots of windows open on the Desktop.

Get into the habit of closing unnecessary windows. Alternatively, select **Hide Others** from the **Applications** menu in the top right corner to temporarily hide all other programs, including the Desktop. A useful tip is to hold down **[option]** when you switch programs using the Application menu, because this automatically

hides the last program. Also, to quickly close all Desktop windows, press **[command] [option]** and **W**.



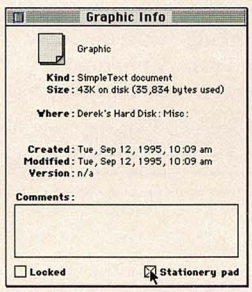
Cluttered windows like these are not just confusing, they also take a long time to redraw.

Number 21 File command

Choosing **Find** from the **File** menu in the Desktop is a good way of finding a file you've lost, but it can also be used when you know where a file is. For instance, if you want to access a Preferences file, which is inside a folder, inside the Preferences folder, inside the System folder, which is on your hard disk, it can be quicker to use the Find command to locate it! Unfortunately, System 7.5's new Find application can slow things down. To bypass it, remove the Find File Extension from the Extensions folder, and your Mac reverts to the quicker, old style Find. You can still use the newer one if you wish, by selecting **Find File** from the **Apple** menu, so you have the choice.

Number 22 Stationery files

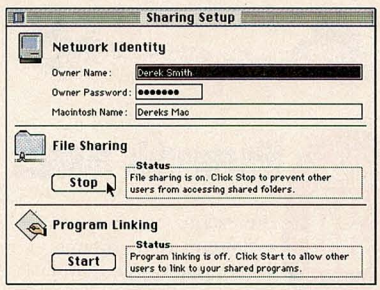
Most word processors can save a file as stationery, so when you open it up, you get a 'fresh', untitled, copy of it to work on, just as if you'd opened a blank document, only with elements there on the page ready to modify or add to. Create stationery files with your address at the top, or standard reply letters. If your WP can't save as stationery files, save as normal, then go to the Desktop and click once on the file's icon. Choose **Get Info** from the **File** menu. Use the check box to turn the file into a stationery file.



Most files can be made into a stationery document. Here we're changing a standard PICT graphic.

Number 23 Networking

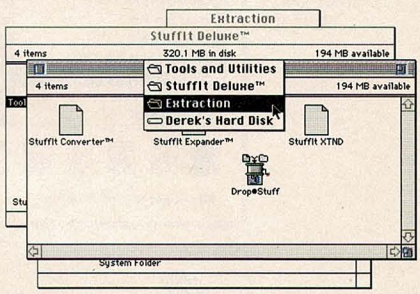
File Sharing enables other users on a network to access your Mac. However, having it switched on can slow your Mac down noticeably, particularly on a large network, as all the Macs tell all the others they are there. It also uses around 300K of RAM, so when you don't need other people to connect to your Mac, turn it off from the Sharing Setup Control Panel. You can still connect to other Macs. If you have a standalone Mac and you really don't need to connect to other Macs or printers on a network, then make sure that AppleTalk is turned off from the Chooser window. This also frees around 300K of RAM.


Sharing Setup
Network Identity
Owner Name: Derek Smith
Owner Password: ●●●●●●●
Macintosh Name: Dereks Mac
File Sharing
Stop
Status
File sharing is on. Click Stop to prevent other users from accessing shared folders.
Program Linking
Start
Status
Program linking is off. Click Start to allow other users to link to your shared programs.

Leaving File Sharing turned on when other people don't need to access your Mac can cause a significant decrease in performance.

Number 24 Windows

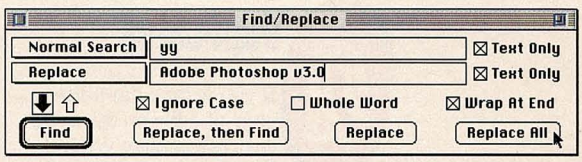
A fast way to navigate backwards through a series of folders is to hold down **[command]** and click on the name at the top of a Desktop window. This causes a pop-up menu to appear, enabling you to select any of the parent folders. Another tip is that if you hold down **[option]** as you double-click a folder to open it, the window containing it will then automatically close.



Move back through windows quickly by holding down **[command]** and clicking on the window's name.

Number 25 Find and Replace

If you are writing a document and you need to keep repeating a long phrase or name, instead of typing that phrase, type 'yy' (or something similar that is unlikely to appear anywhere else in your text). All word processors have a Find and Replace function, so once you have finished, tell it to find 'yy' and replace it with your phrase. Saves valuable minutes if you do a lot of typing – particularly if your typing isn't the speediest.



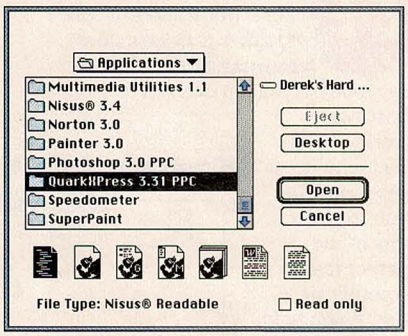
Avoid repetitively typing long words or phrases by using the Find and Replace command – there's one in just about every word processor.

Continued on next page

Number 26 Selecting files

If you open a window on the Desktop, and then wish to open a file or folder within it, press the first few letters of its name in quick succession, and it will be highlighted for you. Then press **[command] O** to open it. You can also select files using this method from the standard Open dialogue boxes in applications. For instance, if you select **Open** from the **File** menu, press **P** to jump to the first file starting with P.

Jump straight to *QuarkXPress* simply by pressing **Q** on the keyboard or to *SuperPaint* by hitting **SU**.



Number 27 Ejecting floppies

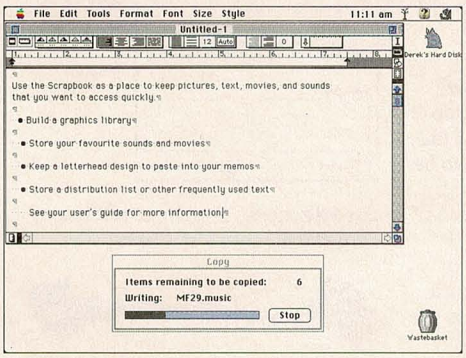
Although you can eject a floppy disk by dragging it to the Wastebasket, a quicker way is the select the disk and press **[command] Y**. Pressing **[command] E** also ejects the disk, but leaves a ghost of it on the Desktop. This is useful for copying one floppy directly onto another floppy without using the hard disk – simply drag the icon of one floppy on top of the other to transfer its entire contents.

Number 28 Duplicates

If you want a duplicate copy of a file on the same disk, rather than using the **Duplicate** option from the **File** menu, hold down the **[option]** key and drag the file to its new location. Instead of moving it, as your Mac would normally do, it will make a copy, just as it would do if you were to drag it to a different disk.

Number 29 Background copy

If you are copying a large number of files, there's no need to sit and watch the grey bar sneak cautiously across the screen until it's all finished. You can switch to an application and carrying on working, while the copying happens in the background. The problem is that once you start copying, you can't open any applications. So begin by opening the program you wish to use, *then* go to the Desktop. Start your copying as normal, then return to your program using the Application menu. You can now use your Mac almost as normal, but you won't be able to print. Why? Because your Mac needs to open the Print-Monitor application in order to print, and as we said, applications can't open when you are copying.

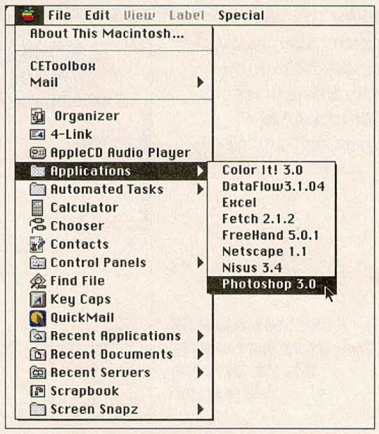

File Edit Tools Format Font Size Style
11:11 am
Untitled-1
Use the Scrapbook as a place to keep pictures, text, movies, and sounds that you want to access quickly.
• Build a graphics library
• Store your favourite sounds and movies
• Keep a letterhead design to paste into your memos
• Store a distribution list or other frequently used text
See your user's guide for more information
Copy
Items remaining to be copied: 6
Writing: MF29.music
Stop
Derek's Hard Disk
Wastebasket

You can carry on typing while copying files in the background – but you can't open any applications.

Number 30 Hierarchic menus

Hierarchic menus are those submenus that pop out from a pull-down menu item that has a black triangle next to it. Often used in applications to select things like fonts, they can also be used in conjunction with the **Apple** menu, which can be big time saver. To have hierarchic menus you either need to be using System 7.5 or to install the shareware program *BeHierarchic*.

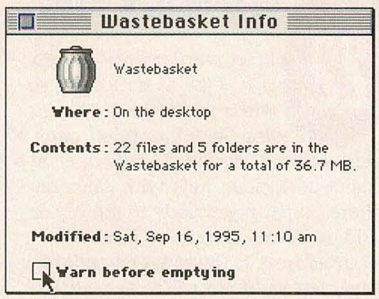
If you put the alias of a folder or disk into the **Apple** menu, a pop-out submenu shows you the item's contents. So a good idea is to create an alias of your hard disk and put that in the Apple Menu Items folder. You now have access to your entire hard disk, no matter where you are.



Here we have a folder with aliases of all applications to give quick access to them.

Number 31 Wastebasket

When you select **Empty Wastebasket** from the **Special** menu, you may see a dialogue box asking if you are sure. Unless you are the nervous


Wastebasket Info
Wastebasket
Where: On the desktop
Contents: 22 files and 5 folders are in the Wastebasket for a total of 36.7 MB.
Modified: Sat, Sep 16, 1995, 11:10 am
Warn before emptying

The dustmen don't knock on your door and ask if you really want to throw away that Dana LP, so why should Wastebasket have to keep checking?

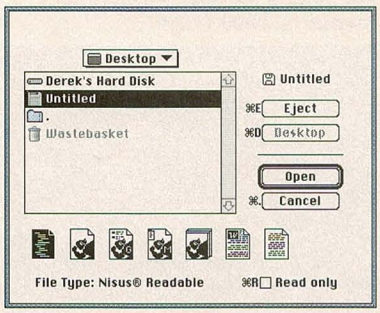
type, this is unnecessary and time-wasting. To turn it off, click once on the Wastebasket and select **Get Info** from the **File** menu (or press **[command] I**). Uncheck the 'Warn before emptying' box at the bottom of the window to banish the warning. Another frustrating delay when emptying the Wastebasket occurs if a file inside is locked. Rather than manually unlocking the file from its **Get Info** window, simply hold down **[option]** when you select **Empty Wastebasket** to force it to delete it.

Number 32 Disk doubling

Programs such as *Disk Doubler* and *Stacker* can give you more hard disk space by automatically compacting and decompacting files. Although useful, especially on PowerBooks, this will significantly slow down disk access, so you should avoid using them if at all possible.

Number 33 Dialogue boxes

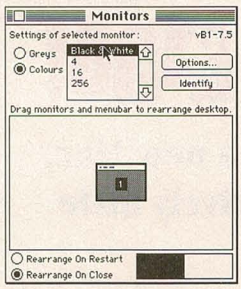
In most dialogue boxes, one of the buttons has a thick black line around it. Pressing **[return]** or **[enter]** has the same effect as clicking on that button. Pressing **[command][.]** selects the Cancel button, and often pressing **[esc]** does the same. In many programs (such as *ClarisWorks*), you can press **[command] N** to select No, or **[command] D** for Desktop.



Nisus is helpful enough to show you the shortcuts next to their options when you press **[command]**.

Number 34 Black and white

The Mac needs to keep redrawing windows, and the more colours it is displaying, the longer it takes to draw a window. So if you're using your Mac for simple tasks, consider switching your monitor to fewer colours, or even black and white, from the Monitors Control Panel.

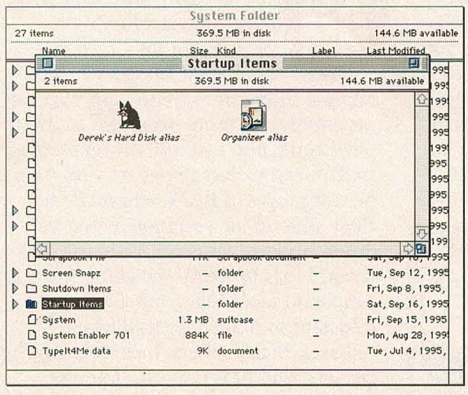


A word processor document in millions of colours isn't too impressive, so consider switching your monitor to black and white.

Number 35 Startup items

If you are always in the habit of opening a particular program or file whenever you start up, put an alias of it in the Startup Items in the System Folder. This has the effect of opening the item automatically on startup. A good example would be a personal organiser. Note that items are launched in alphabetical order, so put a space at the start of an item's name if you want it to open first.

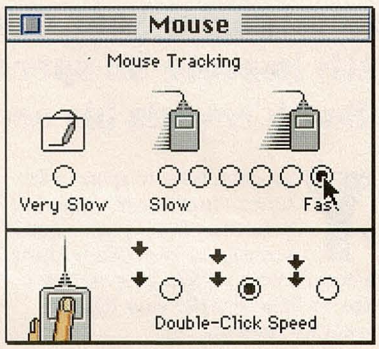
If occasionally you don't want the startup items to open, you can bypass them by holding down **[shift]** after all your Extensions have loaded but before the Desktop appears.



This Mac starts up, it opens the organiser, then returns to the Desktop and opens the hard disk window. It does them in that order because there's a space at the start of 'Organizer'.

Number 36 Speedy mouse

Rev up your furry friend using the Mouse Control Panel. Set his speed to the fastest option, and he'll whizz around the screen and you won't run out of mouse mat!



You don't need a motorised mouse, just set his speed to the maximum.

Number 37 Blinking problem

When you select an item from a pull-down menu, it flashes. To turn this off and save valuable seconds, open the General Controls Control Panel and set menu blinking off.

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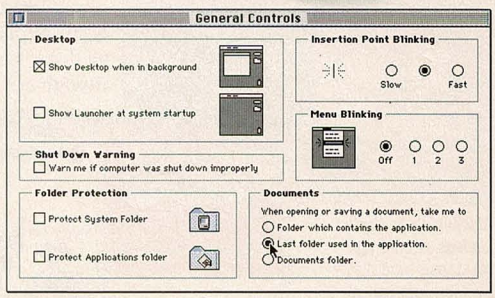


Not only can you switch menu blinking off, in System 7.5 you can elect for applications to always use the last opened folder.

Beat the Clock! For under £150!

Rather than mortgaging your children for a new Mac, you can greatly improve its speed for relatively little cost. Derek Smith reveals his secrets.

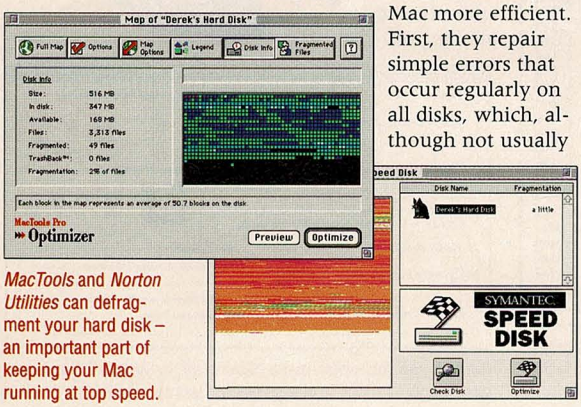
WIN a 16Mb RAM upgrade – see page 146

You don't have to spend a fortune to improve the speed of your Mac. So, if you've got some spare cash just burning a hole in your pocket, here are some tips on how to make your Mac go faster for under £150.

Number 38 Norton Utilities and MacTools

Every Mac owner should have a copy of one of these two Mac fixing applications. Now produced by the same company, they offer almost identical features, and both are excellent. Among other features they do two things to make your Mac more efficient. First, they repair simple errors that occur regularly on all disks, which, although not usually serious, will degrade performance.

Second, they can defragment your disk. When you save files, rather than saving them in one complete block, your Mac tends to fill up any available gaps between other files. This results in files being broken up, therefore taking longer to load. Both applications can totally rebuild your whole hard disk so that files are joined together, thus increasing efficiency. They are available for a street price of around £100 each – for more details contact Symantec on 01628 592222.



MacTools and *Norton Utilities* can defragment your hard disk – an important part of keeping your Mac running at top speed.

Number 39 RAM

If you really love your Mac, then consider buying it some RAM for Christmas. More RAM means you can allocate more memory to your existing programs, run more programs at the same time, and turn off virtual memory. You can expect to pay around £30 per megabyte of RAM, and make it clear which Mac you have when you order, because different Macs use different kinds of RAM. Installing RAM is simple on most Macs, but if you are reluctant to delve into its darkest recesses, many sellers, including Apple Dealers, will fit it for you. If you're happy to do it yourself, compare the prices of the advertisers in MACFORMAT for the best deals.

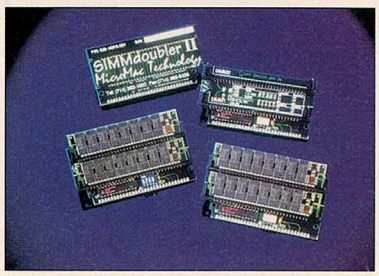
Number 40 FPU

We all need a bit of help when it comes to doing our maths, which is why God invented calculators and FPUs. Floating Point Units (also called maths co-processors) are dedicated maths chips that greatly speed up maths calculations on a Mac.

They are built into PowerMacs and Quadras, but are lacking in all other Macs, such as LCs and Performas. If you regularly use large spreadsheets, databases or 3D graphics packages on a Mac without an FPU, it's definitely worth considering adding one. They speed up maths functions by four to five times, but have precious little effect on other processes. The cost of

If you want your LC475 or 630 to have an FPU, you'll need to add a fully fledged 68040 processor.

an FPU depends greatly on the Mac you have. Most Macs with a 68030 processor, such as the LCII and LCIII, can simply have an FPU chip added, which will cost you about £37. Unfortunately, if you own a 68LC040 Mac, such as the LC475 and LC630, you'll need to completely replace the processor for the full 68040 chip (which includes an FPU). These cost between £200 and £300 and aren't really worth it unless you're desperate. For more details and prices, contact Mygate on 0800 132591.



If your Mac doesn't have enough SIMM slots for RAM, adaptors like these enable you to add more.

Beat the Clock!

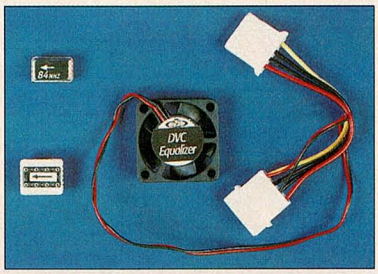
Number 41 Hard disks

With a lot of people upgrading their hard disks, there are many semi-redundant small hard drives around, often sold cheaply second hand. An ideal use is to attach one to your laser printer. Normally when you print a document, your Mac has to download all the font information to the printer via the cable or network before it can start to print. If you install all your fonts on the hard disk, the laser printer can take the font information directly from it, which is much faster. To see if your printer can take a hard drive, check your manual or look to see if it has a standard SCSI port, the same as found on the back of Macs.

Not only are new hard drives coming down in price, second hard drives can be picked up for next to nothing!

Number 42 Clock chips

It may come as a surprise, but Apple deliberately slow down some of their Macs. For instance, the first range of PowerMacs all had basically the same 601 chip inside, capable of running at 80MHz. To create a range from entry level to high end, they allowed the 8100 to run at full speed, while slowing down the 6100 to 60MHz, and the 7100 to 66MHz. This also made it easy to produce an upgraded range of faster Macs six months later, with the 6100 allowed to run at 66MHz and the 7100 at 80MHz. They just slowed them down less.



Clock chip oscillators are rapidly becoming a very popular way of accelerating your Mac.

The speed at which a processor runs is governed by a clock oscillator chip. You can buy a replacement oscillator chip which fits over the top of the old one, enabling the processor to run at full speed – so it would enable both the 6100/60 and 6100/66 to run at 80MHz. Unfortunately it can't help the 7100/80 or 8100/80 because they are both running at full speed already.

Oscillator chips are currently available for most PowerMacs, and quite a few non-PowerMacs, and they all tend to increase speed by around 20%. We have fitted a couple in the MACFORMAT office and have experienced no problems. However, while they're easy enough for anyone to fit (after all, we did it), they do invalidate your warranty – although they can be removed without trace.

Most clock chips cost around the £100 mark, but expect to pay a higher price for the 8500 and 9500, as their daughterboards call for a more elaborate design. For more details, contact Performance Direct on 01784 477477 or Mygate on 0800 132591.

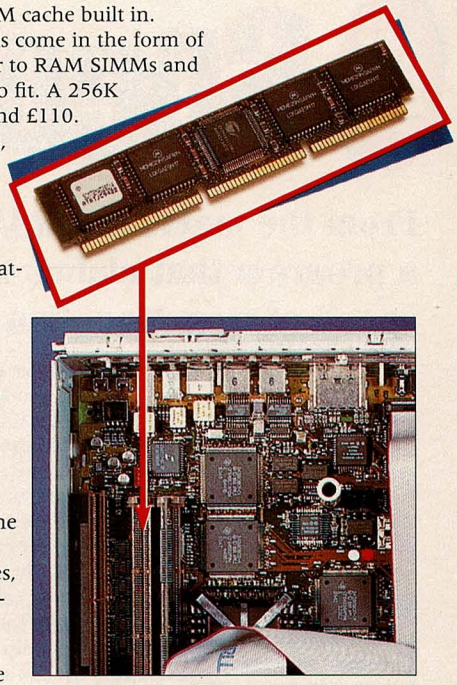
Number 43 RAM cache

Disk caches are built into most Macs, and hold the most recently accessed data from the hard disk in RAM. RAM caches are similar in that they hold the most recently accessed data from RAM in a super fast type of memory. If the Mac needs to access that data again, it loads it from the RAM cache rather than RAM, greatly speeding up those jobs.

Adding a RAM cache to your Mac will increase its overall speed by around 20%, which is well worth it if you have the money to spare. It's a safe hardware solution which, unlike, say, *RAM Doubler*, will never cause conflicts with software.

You can buy 256K, 512K and 1,024K caches, although the 256K is the best choice, as the larger ones offer relatively little extra speed for lots more money. Macs that can benefit from a RAM cache include the PowerMac 6100/60, 7100/66, and 7100/DL. The other 6100s, 7100s and 8100s have a 256K RAM cache built in. These cache cards come in the form of a SIMM – similar to RAM SIMMs and extremely easy to fit. A 256K cache costs around £110.

The new Macs, 7200, 7500, 8500 and 9500, need a new type of RAM cache, which is incompatible with the old type, and much more expensive (big surprise there). The 8500 comes with a 256K cache, and the 9500 with a 512K cache. Unfortunately, the 7200 and 7500 don't have caches, so you'll be looking at spending around £200. Although they're still worth having, it might be an idea to wait a while and see if the prices drop to a more reasonable level. For more details on RAM caches, contact Performance Direct on 01784 477 477 or Mygate on 0800 132591.



Adding a RAM cache to your Mac is probably the easiest way to squeeze an extra 20% speed out of it.

Number 44 PowerFPU

SoftwareFPU is a shareware program that enables Macs without floating point units (maths co-processors) to run software that requires one. Although PowerMacs have FPUs, they can't run some ('unconventionally' written) non-PowerMac-native software. *SoftwareFPU* may help, but because it isn't native itself, it's slow and ineffective.

To counter this, the people behind *SoftwareFPU* have produced *PowerFPU*, a native FPU emulator designed to stop these problems. The authors claim that on a PowerMac 8100/80 it out-performs their own *SoftwareFPU* by some 12 times. So if you run old software that requires an FPU on your PowerMac, this is a worthwhile purchase. *PowerFPU* is available through John Neil & Associates for $75 (discounts for registered *SoftwareFPU* users). Fax 001 415 661 2944, or e-mail johnneil@netcom.com

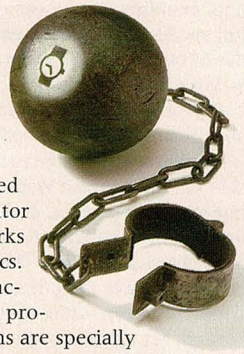
Continued on next page

Beat the Clock!

Number 45

Speed Doubler 1.0.1

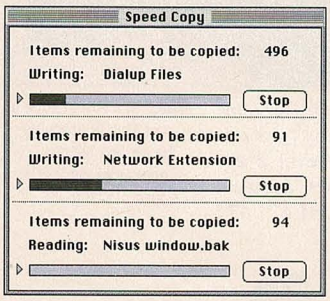
From the makers of *RAM Doubler* comes a program that claims to double the speed of your Mac. Can it be true?



About a year ago, Connectix introduced a little utility called *RAM Doubler*, claiming it would double the amount of RAM in your Mac. It sparked an unprecedented amount of interest – mainly because it actually worked. There was a speed penalty and some software incompatibility, but (to their credit) Connectix posted all necessary upgrades free on the Internet.

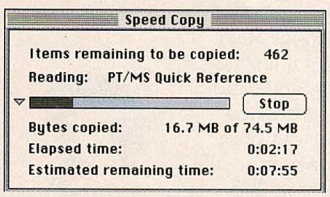
Save £10 on *Speed Doubler* – see our exclusive special offer on page 98

Now Connectix have released *Speed Doubler*, which claims to speed up your Mac. The name is slightly misleading – *Speed Doubler* won't make your Mac run *Photoshop* twice as fast, for example. But it will increase the speed of three specific areas.

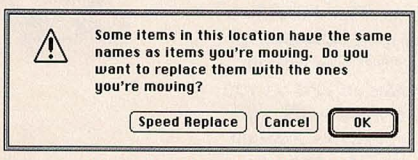


You can copy up to three items to three different disks simultaneously. Of course, each copy will run considerably slower.

The package consists of three Extensions, the first of which is called Speed Access. This is an improved version of Apple's Disk Cache (see page 50) and claims to be more intelligent. We tested it on a large *FileMaker* database and the speed increase was between 15% and 40% over Apple's Disk Cache. An impressive performance, if not double the speed. But this only speeds up repetitive functions – such as if you keep sorting your database by different fields. Day to day tasks are not greatly improved.



Speed Copy enables you to see how long a copy will take, but in our tests, turning this option on slowed copying down a lot.

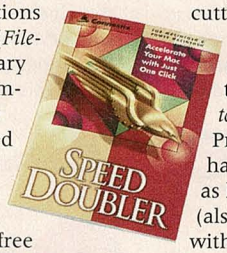

Some items in this location have the same names as items you're moving. Do you want to replace them with the ones you're moving?
Speed Replace
Cancel
OK

If you copy items into a folder where files with the same names exist, you can elect for a speed replace. Only those items with a different modified date will be replaced, since the others will be identical.

However, the second part can help. It's called Speed Emulator and only works on PowerMacs.

PowerMac-native programs are specially designed to work with PowerMacs, but older non-native programs only run on a PowerMac using a built-in emulator. Speed Emulator is an improved version of Apple's own.

Not many major applications are non-native these days (*FileMaker Pro* is one). A summary calculation using Apple's emulator took 38 seconds; the same calculation with Speed Emulator took much longer at 57 seconds and most other functions also slowed down. Connectix's free e-mail support provided a quick answer: virtual memory. Once it was turned off, the same summary took just 28 seconds, and the rest of the functions also speeded up. Connectix say they will fix the problem in an update. Not surprisingly, *Speed Doubler* works well with *RAM Doubler*, and you might need it – installing *Speed Doubler* on a PowerMac increases the amount of RAM your System takes up by 1Mb! *Speed Doubler* and *RAM Doubler* are sold together for £93.95.



The third Extension, Speed Copy, speeds up disk copying in two ways. First, the copying process itself is optimised. On a Classic II, a 13Mb folder duplicated in half the time with Speed Copy – a real speed doubler. Copying from one hard disk to another with a PowerMac 6100/60 also took nearly half the time, but duplicating on the same hard disk only yielded a 50% gain. Tests with floppies were less impressive, but the greatest improvements were with CDs – copying times increased by up to three times! The second speed gain is with background copying. Usually, when you're copying files, you can't access the Desktop or launch programs. With Speed Copy installed, you can open folders, launch programs, and start a second and third copy going at the same time. This function is invaluable.

Speed Doubler undoubtedly speeds up your Mac, but it won't double it. Speed Access significantly speeds up tasks such as repetitive spreadsheet recalculations, but unless you're an accountant this won't excite you. Speed Emulator accelerates non-native programs on a PowerMac, but do you own a PowerMac? And if so, how many non-native applications do you run? Even *FileMaker Pro* will be native soon. Speed Copy is the best, cutting copying times by nearly half and enabling background copying, but Symantec's *CopyDoubler* (part of *Norton Disk Doubler Pro*, £93 from Principal on 01706 831831) has been doing that for a while, as has Aladdin's *Desktop Tools* (also from Principal). The bundle with *RAM Doubler* is tempting if you haven't got that program yet, but *Speed Doubler* itself isn't quite as impressive and innovative.

Continued on page 58

SPEED DOUBLER

Price: £70.50 **With *RAM Doubler*:** £93.95
Requires: Classic II or better, 8Mb RAM, System 7.0 or later. **Out:** now.
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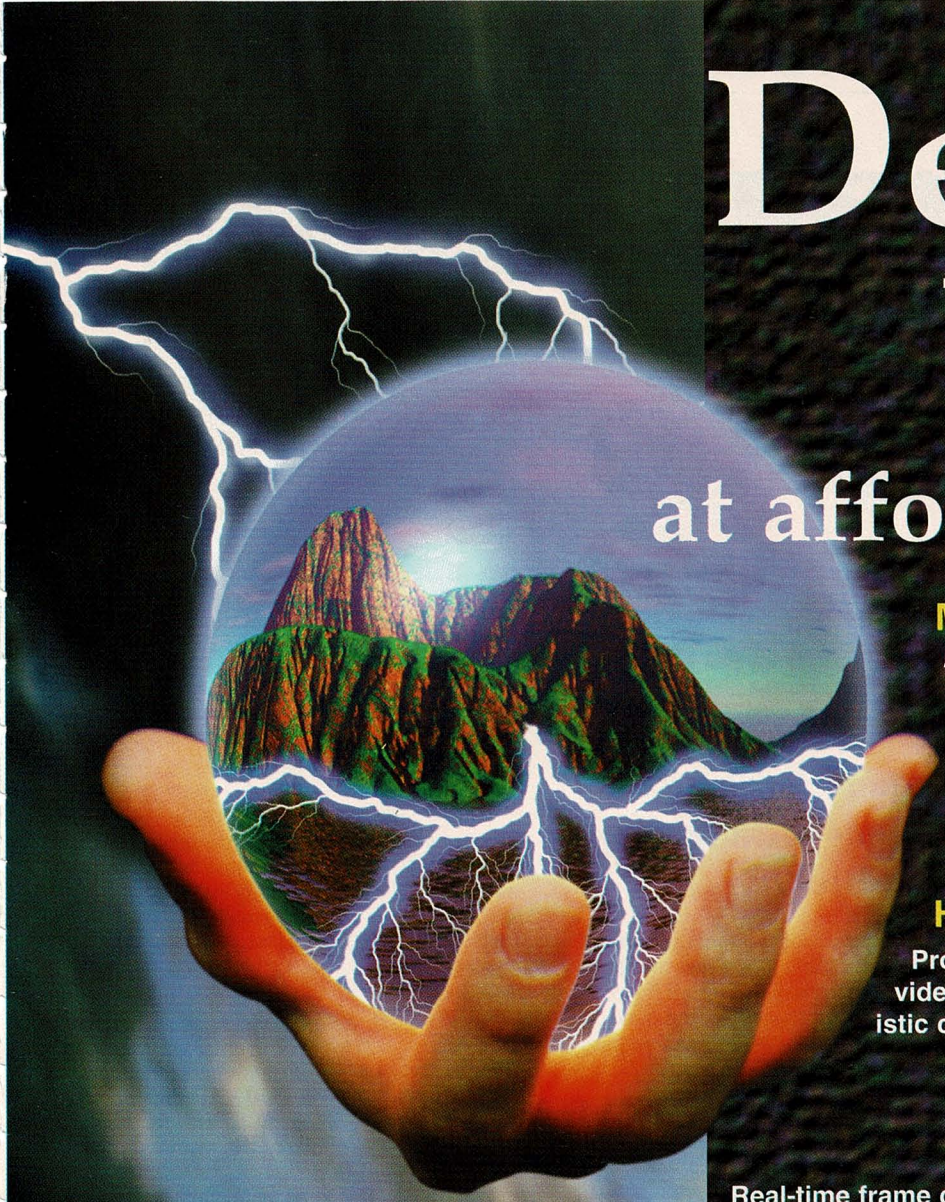

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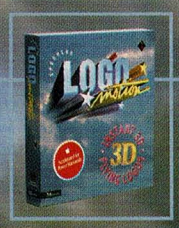

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Beat the Clock! For over £150!

If you have some money to spend, then Derek Smith would like to show you the best options for a faster Mac. Step this way for some trusty advice.

You've just inherited a sizeable sum from your great-aunt. Your shares in Yorkshire Water have just paid out. You've robbed a bank. Who cares? You've got money to spend, and your Mac is about to feel the benefit. Don't waste that money just because you can. With all the changes that Apple are instigating, you should think carefully before parting with your ill-gotten gains.

Number 46 Buy another Mac

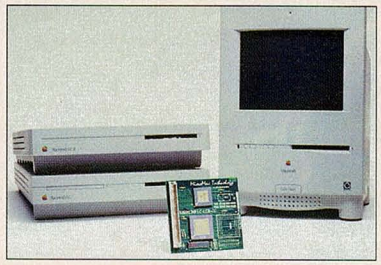
No, this isn't just a facetious comment, and it doesn't mean go out and buy a PowerMac 9500. Instead, have you considered a Classic 4/40? No, really. This section was actually written on a Classic II, while the PowerMac was busy downloading and decompressing tons of stuff from the Internet. You can pick up a second-hand Classic for around £200 (don't pay any more), which is cheaper than most accelerators. It's perfectly good for word processing and running *ClarisWorks* while your main machine is tied up with something else, such as a *Photoshop* filter. You could also network it to your main Mac and use it for backups.

Multi-processor Macs are the way of the future, but if you can't afford £10,000, then maybe you should consider this as your second processor!

Number 47 Accelerators

A popular although increasingly no longer viable option is to buy an accelerator. These give you a faster type of processor chip, or the same model running at a faster speed.

The first Macs had the Motorola 68000 chip inside. Apple then flirted with the slightly faster 68020 chip inside the LC and Mac II, but the next major chip was the 68030. Considerably faster than the 68000, it became popular in many home machines, such as the Classic II, LCII and LCIII. The last chip in the family was the powerful 68040, which drove the Quadras, LC475, and the soon to be dropped 630. Instead of progressing any further with the 680x0 family, Apple then switched to the PowerPC chip, found in PowerMacs. Some standard Macs can also be accelerated to PowerMacs, which we'll look at later.



Accelerator cards may look like boring bits of circuit board, but they can make your Mac soar.

Okay, so the speed of your Mac is dictated partly by the type of processor you have. But the other factor is the speed at which it runs, which is measured in megahertz. A Mac with a 33MHz 68030 will run approximately twice as fast as one with a 16MHz 68030 chip inside.

That's simple, but you can't compare MHz speeds across different chips. For example, a 68040 chip running at 20MHz is slightly faster than a 33MHz 68030, because of its advanced design. So you can only compare MHz within the same type of chip.

The concept of adding an accelerator to your Mac used to be a popular way of getting a faster Mac, because naturally fast Macs were prohibitively expensive. But the situation has changed drastically. Macs are now cheaper, giving you more speed at lower prices, while accelerators have not decreased much in price. This is because Macs weren't really designed for accelerators, meaning they have to be clever technical beasts to work.

So it may be the case that your best option is to sell your Mac second-hand, put the money together with the cash you would have spent on an accelerator, and buy another Mac, either brand new or second-hand. It would be just as fast as accelerating your old Mac, and may have features such as a larger hard drive, more memory, and more expansion slots.

However, if you're attached to your old Mac, there are some good deals around. For instance, if you own an LC, LCII or Colour Classic, then for £116.50 you can buy a Thunder 32MHz 68030 with FPU, which will increase its speed by about 70%. If you have a IIsi, IIx, IIcx, IIvi, IIvx or

Continued on page 60

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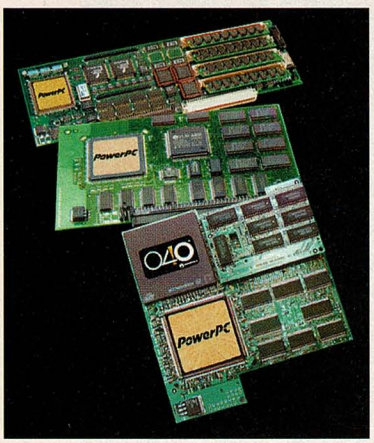
Accelerators from different manufacturers are available for most Macs – for information contact your dealer or a specialist stockist such as Mygate (0800 132591), who stock all the major brands. Check the adverts and shop around for the best deals.

Number 48 PowerMac upgrade

If you want to upgrade to a PowerMac, there are accelerators for some Macs that will give them a PowerPC chip and effectively turn them into PowerMacs.

After the 680x0 family of processors, Apple's next chip was the PowerPC 601, which you find in the entry-level PowerMacs, while the high-end 8500 and 9500 have the 604 chip. To complicate matters a bit, you'll also find the PowerPC 603 chip inside some PowerMac Performas, such as the 5200 and 6200, which is actually slower than the 601. To complicate matters even more, the 603+ chip, found in PowerMac PowerBooks, is faster than the 601.



DayStar produce a variety of boards to speed up your Mac to the PowerMac level.

At the moment, if you want to accelerate your Mac to a PowerMac, then the only choice is the 601 chip. DayStar's £560 PowerCard 601 will transform your LC/Performa 475 into a 601 PowerMac running at just 50MHz, while the same card will run at 66MHz inside an LC/Performa 630, making it much better value.

If you own a IIsi, IIci, IIvi, IIvx or Performa 600, then you have a choice. For £763 you can have the DayStar Turbo 601 running at 66MHz, the speed of a 6100, or for £1,056 it runs at 100MHz, the speed of a 7500. Similar cards at similar prices are available for most Centris and Quadra Macs.

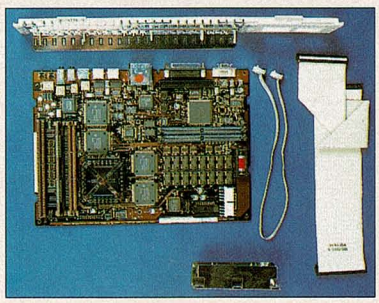
The problem is, although you get the speed of a 7500 at half the cost of a 7500, you don't get the new faster RAM DIMMs, PCI slots and RAM cache options. You also can't upgrade the daughterboard to a new processor, or install a new ROM in the future, should it be necessary. Perhaps your best option would just be to sell your Mac, and with the money you would have spent on the upgrade buy a PowerMac 7200 with lots of RAM to play with. DayStar upgrades are available from Mygate (0800 132591), Dabs Direct (01924 794000) and Aptec (0171 627 1000).

Number 49 Motherboard upgrade

The ultimate way to speed up your Mac is to buy a logic board upgrade. This involves taking out the main circuit board from your Mac and replacing it with a new one. The advantage of this is that as well as getting a faster Mac, you also get some of the new technologies.

Unfortunately, there were never many motherboard upgrades available, for two reasons. First, the Mac you are upgrading needs to have a very similar casing for everything to fit inside. Apple continually change their basic case design, such as the radically different 7200 and 7500, making motherboard upgrades physically impossible. Second, since most of the cost of a Mac is the motherboard, these upgrades tend to cost the same as buying a whole new Mac, especially if you take the second-hand value of your current model into account.

As a result, Apple have stopped making them, although you may be able to pick up some old stock from some of the larger advertisers in MACFORMAT. Interestingly, a report suggests that Apple will offer a motherboard upgrade for the 7200 early next year. However, with daughterboards becoming the standard, this problem may eventually disappear.



Your can turn some Macs into PowerMacs by replacing the entire motherboard with a new one.

Number 50 Daughterboard upgrade

Apple have recognised that motherboards are costly, and are now producing Macs with their main processor on a small, easy to swap daughterboard. So upgrading the speed of your Mac is easier – just pull the card out and pop a new one in. This new technology currently applies to the 7500, 8500 and 9500 only, and there are no replacement boards yet, but Apple say that upgrade boards should be available early next year.

Your new daughterboard could contain the same processor running at a faster speed, or a newer, faster chip. For instance, the 7500 has a 601 chip on its board, but you'll soon be able to buy a replacement board containing a 604 chip to give you the speed of an 8500. The 8500 and 9500 have the 604 chip on their daughterboards, but you'll easily be able to upgrade to the next chip in the family, the 620, when it becomes available in the future.

PCs use a similar system of swapping the main processor chip. With the Mac, it's more expensive because the daughterboard contains not only the processor chip, but several other vital components. The advantage is that it ensures compatibility with future technologies, such as multi-processor boards. DayStar are currently developing a board with four 604 chips running in parallel to give amazing speed, and, although usually expensive at first, chips like the 604 quickly come down in price. All this could mean that in the not too distant future we'll all have Macs that can be upgraded easily, at a sensible cost. Perhaps this will also be an end to the frustration of buying this week's top-end Mac, only to discover that it's next week's discontinued line. **MF**

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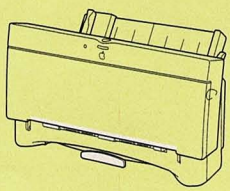

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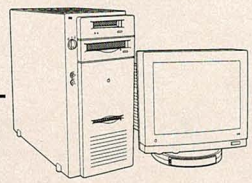

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Choice Selections

Image editing often involves working on small or fiddly areas of an image. To do this well, you need to be able to select precisely. Brian Larkman twirls his lasso.

The difference between digital paint and image processing programs becomes more indistinct as time goes by, but the real contrast between them lies in the way they handle selections and masking. To function as a true image processor, a program must have many subtle ways for you to choose areas to work on. Of the programs we are using for this series, *Photoshop* is the unchallenged master in this area, but the latest version of *Color It! 3.0.1* has greatly improved. *PhotoFix* now lags very far behind, and for this issue's tutorials at least, will only be mentioned in passing.

The full version of *Color It! 2.3* is all yours on the CD-ROM

There are four basic ways that a defined area can be isolated from the rest of the image: as a selection, a mask, a channel and a layer. Different programs use these terms in a variety of ways, sometimes interchangeably, which causes great confusion if you swap between software packages. In most graphics programs on the Mac, selecting an area with one of a variety of tools places a marquee or active outline of 'marching ants' round it and enables it to be cut or copied, painted or otherwise acted upon, independently of the rest of the image.

Selection boundaries can be added to or subtracted from, grown, or converted to boundaries. In the form of Paths they can be edited as Bezier curves. Selections are transitory – a new selection replaces any selections currently active. But a selection can be converted into a mask, saved into a channel or moved onto a separate layer, temporarily 'fixing' it. Selections are used in this way to cut the face and moth images in the first tutorial.

Masks and Channels

In some programs, Masking also defines a selected area, but as a semi-transparent colour that you can thicken or thin, extend or erase with normal paint tools, enabling you to apply semi-transparent effects. In *Photoshop*, a masked area is shown by a translucent overlay colour – usually red. In *Color It! 3.0* and *PhotoFix*, a mask is a separate image file or 'selection document', showing the selected/masked areas in shades of grey – the darker the grey, the more opaque the mask is, so areas covered by black parts of the mask are completely protected from paint, white areas are completely affected by paint and grey areas partially affected by paint. The third tutorial uses masks in this way to protect several areas from paint spray as the airbrush is used to create a chrome effect.

In *Photoshop*, this form of separate image mask is called a Channel and each image can have lots of them, if required. In all three programs the mask/image/channel can be painted on or even have a greyscale image pasted on. Each channel is independent, so selections/masks can be saved and used on other images. In *Photoshop* – and to a lesser extent *Color It!* and *PhotoFix* – channels can be used to create complex effects. *Photoshop* has a number of Calculate functions that enable channels to 'operate' together on an image or each other to great effect. The second tutorial attempts to use these operations in *Color It!* to create an embossed number-plate effect.

In all three programs, selected areas can be dragged about the screen like paper cutouts on a photographic montage. If you hold down **[option]** as they are first dragged, a copy of the selection is dragged instead. This copy is said to be a 'floating' selection and you can operate on it with the various paint modes, effects and filters separately (but it is still temporary, each selection being replaced by the next). *Photoshop 3.0* has taken this form of floating selection further by enabling it to be converted to a Layer. Layers are, in effect, autonomous images that float above the background with their own properties, such as transparency.

Photoshop 3.0 was used to do this image, but *Color It!* was used for all of the tutorials (see inset). Both packages can produce this image with equally professional effects, *Color It!* is just slower.

RUBBER BANDING

The Lasso tool in *Color It!* is good for drawing round irregular shapes. You select an area on your image by drawing freehand, but this is tricky with a mouse. As soon as you release the mouse button, the rest of the selection is completed with a straight line between the start and the end. But if you hold down **[option]**, you can use a rubber band selection method instead: when you release the mouse button, the selection remains active, and you plot the rest of the selection like a dot to dot drawing, with lots of straight lines and marking points.

Continued on next page

IMAGE PROCESSING SOFTWARE

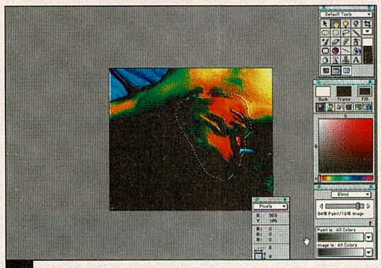
In this series of tutorials, you'll find three different image editing programs referred to: *Color It!*, *PhotoFix* and *Photoshop*. These cover a wide price range, and *Photoshop* is the universally acclaimed and costly industry standard.

- Adobe *Photoshop 3.0* costs £737.90. Contact Principal on 01706 831831.
- A full working version of *Color It! 2.3* is all yours on this issue's Cover CD.
- *Color It! 2.1* is available bundled with *Kai's Power Tools*, which costs £151.58 – contact Principal on 01706 831831.
- *Color It! 3.0.4* costs $149.95 plus $15 P&P from the US. Contact MicroFrontier in the US on 001 515 270 8109. However, you can upgrade for just £44.95 in our special MACFORMAT offer. Turn to page 122 to find out how.
- *PhotoFix* from Le Pixel costs £116.33 for the RGB version, and £175.08 for the CMYK version. For more details contact Linographic on 01252 376103.

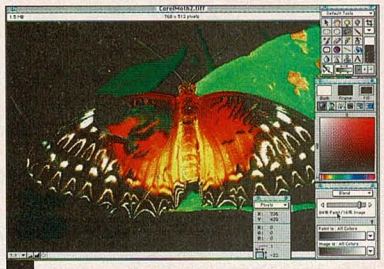
Selection and Montage

Tutorials

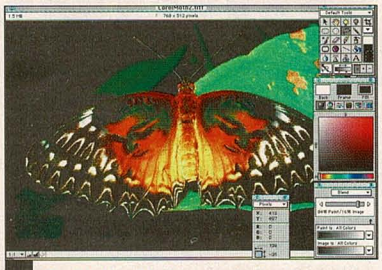
In all three of these tutorials, references to menu items and sub-menu items are in this form and order: Menu/Item/Sub-item.



1 **Cutting the Face Image:** you will have to provide your own face image. Here the Lasso selection tool 'cuts' close to the facial features – overall in a rough triangular shape to suit the form of the moth's wing. Hold down **[option]** and select the Lasso tool to allow rubber-banding. Then feather the edge of the selection at a width of approximately ten pixels using **Selection/Feather,** edit the colour with **Curves** and copy it to the clipboard.

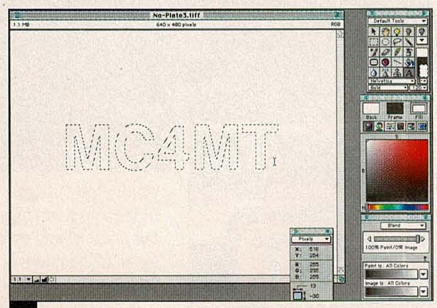


2 **Pasting and Adjusting the Face:** the moth image was loaded from the Corel clip art folder on the MacFormat 28 Cover CD after being converted to TIFF format by *GraphicConverter,* which is on every MacFormat CD. The face is pasted, then scaled, moved and rotated to a suitable position. Notice the smooth edge blending. Copy the image from this new position to the clipboard and save the whole image with a new name.

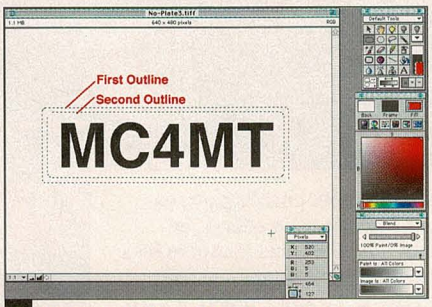


3 **Duplicating the Face:** paste the face again and immediately **Image/Flip/Horizontal** and adjust the position of the face to reflect and match that on the other wing. Notice that the Paint palette is set to Blend mode and that it is set to 86% image blend. This enables the features of the wing to show through, improving the illusion that the face is actually part of the wing pattern. Now press **[command] D** to drop the selection and **Save** again.

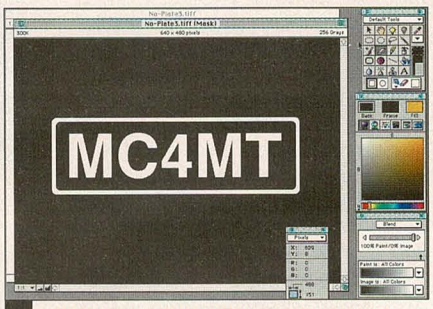
Channel Operations



1 **Text Selection:** start a new 640x480 page, set to millions/thousands of colours, with a white background, black foreground. Select the text tool, Helvetica font, bold, 120pt. Check **Tools/Anti-Aliasing** is on. Click the pointer on the lower left of the screen, type in text, double click Text tool to outline selection. Move selection centre screen with Arrow tool. **Save With Selection** to disk as TIFF, then save text as a Mask Document using **Selection/Mask Operations/Selection to Mask.**

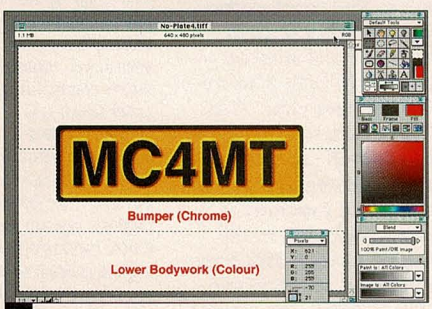


2 **Border Selection and Mask:** to create the border, choose the rectangle selection tool and curved corners option in the dialogue in the tools palette. Draw a first outline selection around the text leaving a reasonable gap as shown. Holding down **[command],** drag a second outline inside the first. This will de-select the inner area, leaving a selected border.

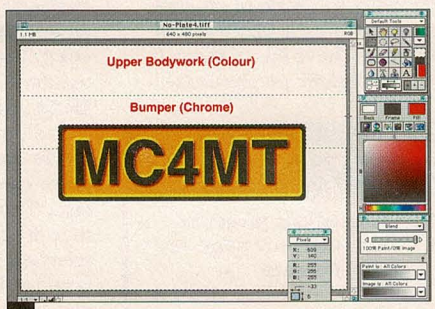


3 **Add Selection to Mask Document:** to add this selection to the text document mask already created, rather than creating a new mask document, use the menu **Selection/Selection Type/Document,** then **Selection/Mask Operation/Add Selection to Mask.** (**Selection Type/Selection** creates a new mask.) Use **Windows/[filename] Mask** to bring the mask document to the front screen (it should look like this) and save it as a TIFF file.

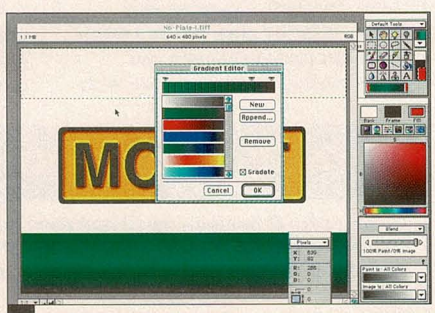
Masking and Painting – Chrome Effect



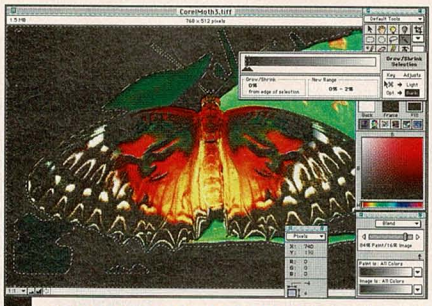
1 **Preparing Masks – Lower:** before using airbrush, protect some areas from paint. Examine the main illustration to see how the image is divided. Select number plate with the Curve Rectangle selection tool. Change to Plain Rectangle, holding down **[shift]** (so you add to current selection), select upper area overlapping number plate, then lower bodywork area. Use **Selection/MaskOperations/Selection to Mask,** bring this mask to front, apply **Filters/ImageMap/Invert** and **Save** to disk.



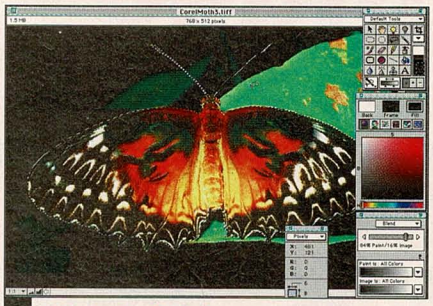
2 **Upper Mask:** return to main illustration. The lower mask selection should still be active – if not use **Selection/MaskOperations/Mask to Selection.** Use the Zap tool to deselect lower bodywork area and **Selection/Invert** (ensures the two masks will register). Select the Curve Rectangle tool and, holding **[shift],** add the rest of the number plate to the selected area. Use the Plain Rectangle selection tool to add the upper bodywork area. Make this selection a document mask and save it to disk.



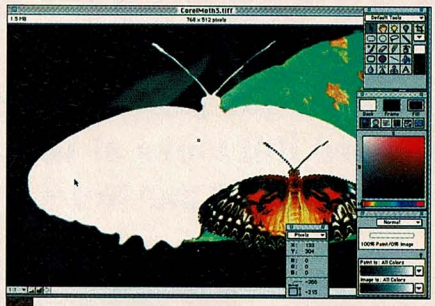
3 **Bodywork Gradient:** the bodywork is painted with a simple gradient. You will have to experiment with the Gradient tool to create a bodywork curve and colour that suits you. Click on the **Gradient** tool and then the gradient colour swatch that appears in the tool palette to bring up the **Gradient Editor.** Load one of the new masks back as a selection and use the Zap tool to deselect the number plate before applying the gradient. Repeat for the other mask.



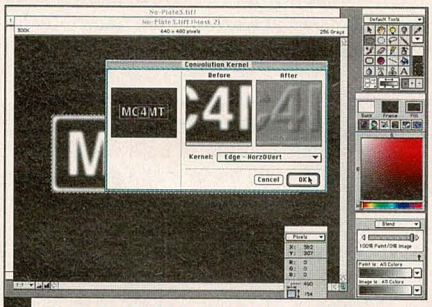
4 **Selecting the Moth – Magic Wand:** the moth must now be lifted from the page prior to pasting it in its final position. Most image processing programs provide several selection methods. Here the Magic Wand tool was used. In *Color It!* this is limited because it is not Anti-Aliased (the edges are not smoothed). For this job it is also too fiddly trying to select the whole moth.



5 **Selecting the Moth – Lasso:** other methods include the Bezier selection tool and the Freehand Shape tool, but here the Lasso is used again because of its versatility. You can hold down **[option]** to make the Lasso rubber-band, if you need to, and you just click your mouse to make a final selection.

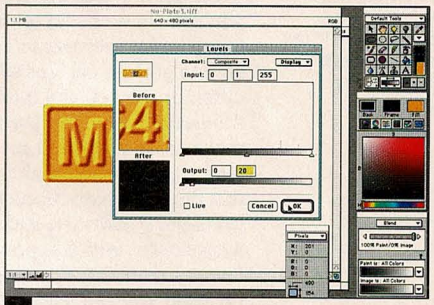


6 **Save and Resize:** you can extend the selection by defining a new edge. To define, you hold down **[shift]** and to subtract you hold down **[command].** Once the shape is defined, save the whole image. Keep the moth shape selected and save it as a TIFF with the **Save With Selection** option checked (not the **Save As Selection**). Later it can be loaded ready selected and scaled before you copy and paste it into another image.



4 **Create Duplicate Mask and Emboss:** the simplest way to duplicate a mask is to make another copy, so return to main image via **Windows** menu. Use **Selection/Mask Operations/Mask to Selection** then **Selection/Mask Operations/Selection to Mask.** This new mask will come to the front. Use the Curve Rectangle selector to select the number plate area, as shown. Apply some blur, **Filter/Blur(2),** then Emboss using **Filter/Convolution/Kernel,** choosing the **Edge-Horiz&Vertical** kernel.

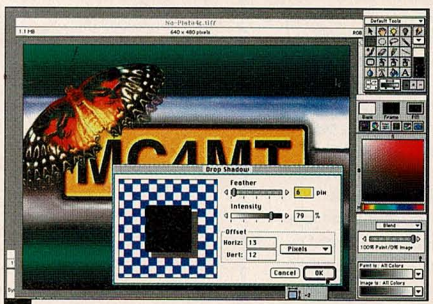
5 **Finish mask:** the finished mask is shown here. It has been inverted **(Filter/ImageMap/Invert)** to create raised letters on the final image and the contrast has been increased (+70%) to emphasise the shadows. Save as a TIFF. This is one of a series of channel/mask operations you can use to create 3D glass, metal, liquid, embossed paper and carved stone effects on an image. Deke McClelland's *Photoshop Bible* and *The Photoshop WOW! Book* both go into some detail about them.



6 **Using the Mask: [command] D** drops all selections. Clear main image to white. Choose mask from last step with **Selection/Document Mask/[filename]** (Mask 2). Clear screen to black. Choose Curve Rectangle tool, select number plate. Use **Filters/Adjustment/Brightness RGB,** R=+55, G=+26, B=-100. Make first mask active with **Selection/DocumentMask/[filename]** (Mask 1). Darken text and border with Levels (**Filters/Adjustment/Levels**). Set Output Slider to 20. Save main image as a new TIFF.

4 **Spraying the Chrome Illusion – Sky:** load one of the masks as a selection – here the lower area is masked. Invert the selection. Now spray the chrome area. Use the largest airbrush, 100% Repeat, 50% Flow and Black paint. Start by defining the contours of the bumper – smooth gradients and curves all round. Next use blue in a broad sweep across the upper area for the sky. (We are using a simple illusion of reflected sky and ground for a chrome effect here.)

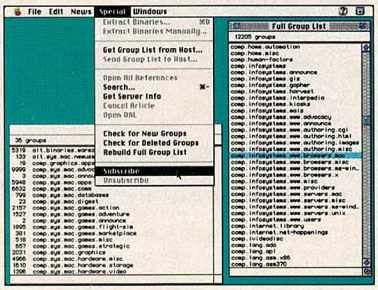
5 **Chrome Illusion – Ground:** load the second mask as a selection and invert it. The horizon should be quite dark and the lower (ground) area darker than the sky, so use dark red, brown or green. Start by defining the contours, then add detail. Remember the light direction and add some highlights and shadows with smaller brushes. Keep everything smooth and save often. *Color It!'s* great advantage is multiple undos! Use the Finger tool for final touching up along the horizon and save.



6 **Adding the FaceMoth:** load the FaceMoth picture, resize appropriately and **Edit/Copy** the moth (the selection should have been saved with it). Paste the FaceMoth onto the Number Plate picture, Rotate and move into position. Use **Selection/DropShadow** as shown here. This image also has a reflection of the moth pasted first at 75% Blend and masked only onto the bumper. Try this for yourself. The final version is shown as an inset to the main illustration on page 63. **MF**

Global village

Usenet is the place where the Internet comes alive. Richard Hill looks at this ever-changing meeting place in part five of our Net series.



You can subscribe to your favourite groups – it means you can find them a lot more easily from the thousands available.

PREVIOUSLY...

Our series on the Internet began in MACFORMAT 27 with an introduction to the Net and a focus on the World Wide Web. In succeeding issues, we've looked at what you need to get connected, how to use e-mail and how to create your own Web pages.

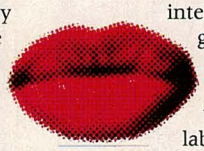
Sex, software pirating, offensive language – every horror story you've heard about the Internet probably started with Usenet. And it's true, you will inevitably find these and more on Usenet, but only because these things are a part of the real world. But there's also plenty of wit, intelligence and a sense of community. In this part of the Net you can meet and talk to people from all walks of life around the globe.

Try Usenet for yourself – there's a copy of *Newsreader* on the CD-ROM

Usenet is a discussion area where you can chew the fat with people who have similar interests to you. It's divided into groups, each of which is on a different subject, and there are literally thousands out there. Usenet isn't a live medium, so you don't get to argue with someone on another continent in real time. You communicate using newsgroup software, such as *Newswatcher*, which is provided on this issue's Cover CD. With the newsgroup software you can post a message (send an e-mail to the relevant group for others to read) or call up a group to see what's been posted by others.

With so many groups to choose from, you'll find there's a bewildering variety of opinions and interests. Where some areas offer an opportunity for passionate and intelligent discussion on computing or art or sociology, others present a stream of immature ranting and four-letter words. Then there are the notorious areas that have led to tabloid scare stories – groups where pornographic pictures have been posted up for others to download.

Which groups you'll actually be able to access depends entirely on your service provider – the company that gives you your link to the Internet (see MACFORMAT 28). As part of your Internet connection, you may be given the name of your provider's news server. This is the computer the firm uses to store any newsgroup messages – they don't have to store every group (they may choose not to, or they may simply not have room), and some will also screen out the more dubious ones available. If you have read about a group that isn't stored on your news server, you can make a request to your provider to make it available.



Finding a group

The way newsgroups are named looks odd on the face of it, but it's actually intended to help you find the group you want out of the thousands that are available. Groups on a similar subject will begin with the same label – 'comp' for computer groups or 'rec' for recreational topics. Further parts of the group names will break the topics into more focused subjects. So comp.sys.mac.advocacy and comp.sys.mac.games.action each belong to the comp.sys.mac area but

BECOME A GROUPIE

To get you started, *Newswatcher* is on the Cover CD. You need to get the details of the news server you should use from your service provider and enter these into Preferences. We've also compiled a couple of lists of useful groups in the files Macintosh and New Users. Open either of the files and double-click on any of the group names in the list to open it. You may find some groups are not included on your news server, though.

NETSCAPE NEWS

If you are using *Netscape Navigator* or a similar World Wide Web browser, you can link to newsgroups too. Enter the name of your news host into the News and Servers Preferences box. Now call up the Open Location box and type in **news://** followed by the name of the group you want to access.

The status bar gives a check of how many messages there are.

Threads are listed here – a thread can be one article or several. You'll see the first name and subject line for the first message in the thread, and how many messages there are.

Click on this arrow to see the full list of names and subject descriptions in a particular thread.

Any thread you've read all the way through appears as marked, and won't appear next time you enter this group. You can mark it as unread again if you wish.

rec.music.misc

196 articles, 194 unread

-		paul ilechko	Re: will we see a Neil Young box set soon???
▷	2	Spencer Kantor	Re: Porky's Revenge available anywhere?
▷	4	KMecum	Re: Contest! - What does REM stand for (updates)
▷	6	Derrick Rowland…	Re: ANY AUDIOPHILES KNOW THE REASON FOR THIS ODD…
▷	2	Brett Dale	garth's new album
-		GEOJERRY	*** JOSH SMITH & THE RHINO CATS *****
-		Digital	SKA Music!
-		Marshall Laird	What happened to Bud and Travis?
▷	2	Primeval Reckon…	~~COMPACT DiScS FOR SALE~~
-		Philippe Gagne	REQ: Lyrics to Patience
-		David Mandl	Playlist, 9/24/95
▽	4	Sarit Zadok	Re: saddest song ever
		Vedran Janus - …	Re: saddest song ever
		Jen Boucher	Re(2): saddest song ever
		gillian.hardy	Re: saddest song ever
-		Sarit Zadok	Re: Who sings?
▷	3	Sarit Zadok	Re: What are you listening to right now?
▷	8	Aaron Dickey	Re: MOST MEANINGFUL, ELOQUENT SONGS OF ALL TIME
▷	4	Dave Hamaker	Re: Tinnitus FAQ Pointer
▷	4	P.M.Wong	Re: What's the saddest song in the world?
-		Sefan	SHEENA EASTON mailing list
▽	2 ✓	Clint Fleckenst…	Song from "Hackers" movie trailer? Soundtrack?
	✓	Richard Christo…	Re: Song from "Hackers" movie trailer? Soundtrac…
-		Brion Sohn	-- Survey -- Please Answer -- 26 ques. --

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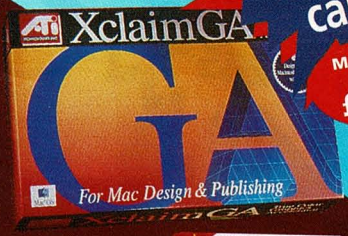

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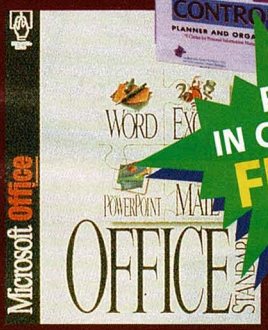

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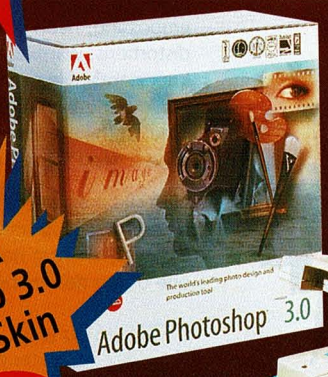

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Top Offers for today's Mac market.

More inside from Asante, Dantz, Intercon, MYOB, RayDream, Ritz, Scitex, & Xerox.

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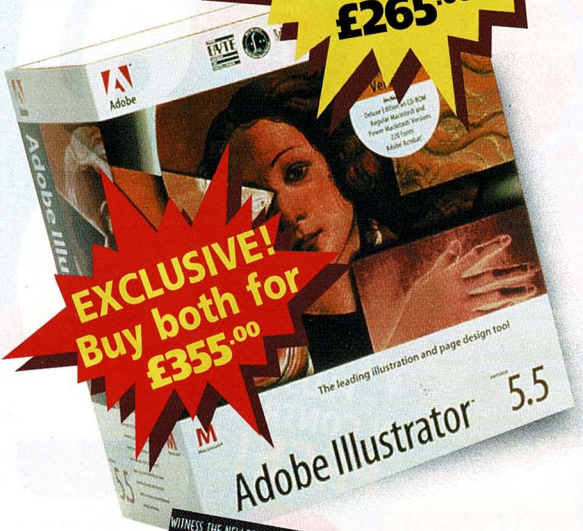

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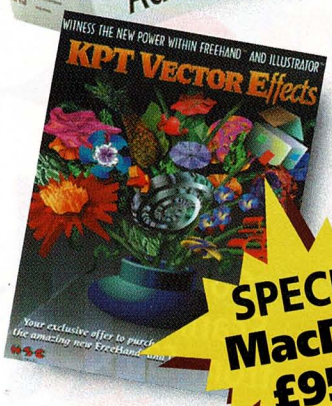
EXCLUSIVE! Buy both for £355.00



SPECIAL MacDeal £95.00

Need to create an illustration on the Mac? Then you need **Adobe Illustrator 5.5**, the best-selling Macintosh illustration program.

Powerful, easy to use drawing tools and superior text handling mean that Adobe Illustrator is favoured by graphic artists, technical illustrators, desktop publishers – all those who use Macs creatively. Adobe Illustrator includes many features not found in other drawing programs.

Quite simply, it can't be beaten – especially in combination with **KPT Vector Effects.** This brilliant plug-in set of cool tools opens the door to unlimited new illustration possibilities within Adobe Illustrator – and cuts your production time! Produce images in 3D, create flares, embossing, neon effects, shadows, distortions, warping and many others. Importantly, file sizes are always minimized, and all work is created in real time. In their review, *MacUser* gave it 5 mice – need we say more!

Now here's the best bit. Order **Adobe Illustrator 5.5** and **KPT Vector Effects**, and get both for £355! Just call one of the dealers below today.

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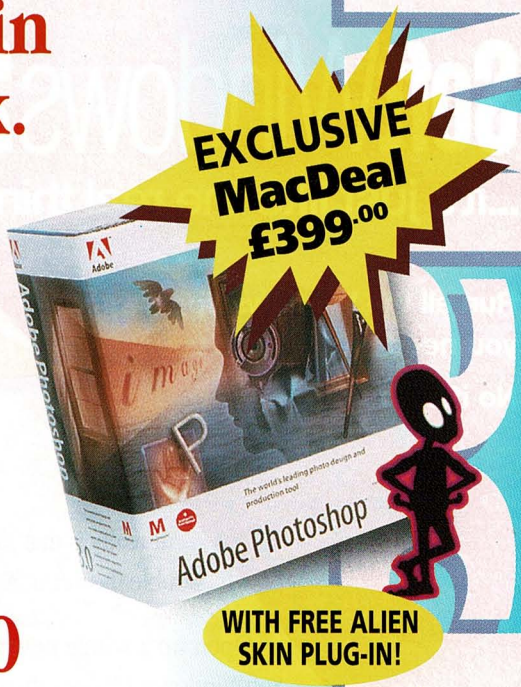
The secret is in the Black Box.

More powerful than ever – that's **Adobe Photoshop**, now accelerated for the Power Mac! The industry's leading photo design and production software supports multiple layers and lighting effects, plus colour correction tools that make editing and production easier than ever!

And now we're offering Photoshop with **Black Box 2.0**, a special effects plug-in from **Alien Skin.** Black Box's 10 fantastic filters let you harness the power of Photoshop's layers, creating spectacular 3D and other images, quickly and easily.

And the price of all this excellence? Only £399 – but hurry, this is an EXCLUSIVE limited offer!



PageMaker 6.0 with FREE fonts!

If you create page layouts of text and graphics, then take a good close look at Adobe PageMaker 6.0, the brand new release of the established favourite that's set to take the market by storm.

PageMaker 6.0 is a real pleasure to use. Create as many master page templates as you wish! Text handling leaves other page layout programs standing. Story and Table Editors are features that you'll come to appreciate again and again! There's built-in HTML and PDF filters, a must for those working in on-line media, and this new version includes Kodak's industry-leading Precision Colour Management System.

Adobe PageMaker 6.0 is this year's DTP revelation. Order your copy today and we'll add in a FREE CD of over 100 great fonts while stocks last!

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Open up a whole new world of PC applications - SoftWindows 2.0 runs them all so the choice is yours from Word, Excel, Paradox, Improv etc. to multimedia CD-ROMs like Encarta 95. Connect with colleagues on a PC network but keep the convenience and familiarity of your Mac environment. Cut and paste between Mac and PC applications. Run MS-DOS applications. Use Mac peripherals from within PC applications...

The options, unlike this space, are endless.

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The Cutting Edge of 3D Illustration and Animation.

NEW LAUNCH! Ray Dream Studio

Here's an amazing 3D breakthrough from world leader Ray Dream! It's the first advanced, fully integrated imaging suite for creating 3D illustrations and animations – and it's called **Ray Dream Studio.**

Ray Dream Studio seamlessly integrates four powerful components to create the most significant next step in 3D on the Mac today. The package includes:

Ray Dream Designer 4, which helps you create photo-realistic colour images with stunning visual impact;

Ray Dream Animator, breakthrough 3D animation with kinematics;

Dream Models, with over 500 fully-textured 3D models for you to tailor and use; and

Extensions Portfolio, a set of additional functions - such as panoramic camera and animated sunsets!

Using Ray Dream Designer already? Then upgrade to Studio for only £99.00

SPECIAL MacDeal £299.00

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There's no easier, more affordable route to 3D animation and illustration than Ray Dream Studio. So call one of the dealers below and order your copy now!

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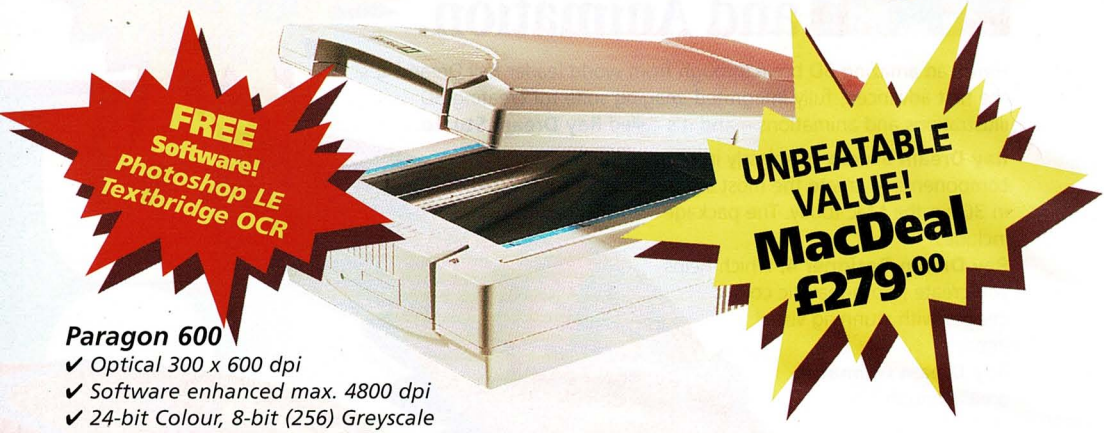
Look! 24-bit colour scanners from under £300!



Paragon 600

- ✔ *Optical 300 x 600 dpi*
- ✔ *Software enhanced max. 4800 dpi*
- ✔ *24-bit Colour, 8-bit (256) Greyscale*
- ✔ *Scan Tools include ISIS, Plug-in Twain Driver*
- ✔ *Built-in SCSI interface*

Options:

- ✔ *Transparency Kit*
- ✔ *Automatic Document Feeder*

Paragon 1200 SP

- ✔ *Optical 600 x 1200 dpi*
- ✔ *Software enhanced max. 9600 dpi*
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- ✔ *30-bit Colour, 10-bit Greyscale*
- ✔ *Plug-in Driver, ISIS*
- ✔ *Built-in SCSI interface*

Options:

- ✔ *Transparency Kit*
- ✔ *Automatic Document Feeder*

Check out these great value colour flatbed scanners from Mustek! They offer **24-bit (Paragon 600) or 30-bit (Paragon 1200 SP) per pixel true colour** scans, capturing 16.7 million colours, or true 256 greyscale for mono images. And with each scanner Adobe Photoshop LE and TextBridge OCR software comes absolutely FREE!

And with prices starting at only £279 for the Paragon 600, high quality colour saturation and image distinction has NEVER been this inexpensive!

There's a Paragon solution for every publishing, pre-press or document processing need. Call one of the dealers shown below and they'll be happy to tell you more. We challenge you to find a better price and performance deal anywhere else!

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NEW! Blazing 24-bit PCI screen performance!

If you use a Power Mac, then read on. Because here's a graphics accelerator from ATI that'll really blow your mind without blowing a hole in your wallet.

XclaimGA is a brand new 24-bit card which includes *On Board*, an acceleration utility with a difference. Install one and you'll see that typical scrolling times for programs like Adobe Photoshop, QuarkXpress and FrameMaker are 8 times faster than when unaccelerated. Imagine 20 seconds for a 24-bit Photoshop image, or 26 seconds for 40 pages of Quark! Indeed, it's so good that the ATI Mach 64 accelerator chip used in the **XclaimGA** was chosen by Apple!

SPECIAL MacDeal from £279.00

The XclaimGA board supports display resolutions up to 1600x1200dpi, with a 75Hz refresh rate. You get easy access to a host of features, including pan and zoom, and you can modify your workspace access, or switch colour depth and resolution on the fly. All at a quarter of the price of some PCI boards. Yes, a *quarter!*

XclaimGA boards come in a 2MB version for 15 and 17-inch displays (£279), and a 4MB version for 20 and 21-inch screens (£379). They are particularly recommended for Taxan's monitor range, especially the Taxan Ergovision 1080LR, which has a brilliant 20-inch screen that's just right for Mac users. It's part of a family of great Taxan Ergovision monitors for the Mac, including 15-inch, 17-inch and 21-inch models.

SPECIAL MacDeal Taxan Ergovision 20" £899.00

Check out **XclaimGA** boards at one of the dealers below. They're true bargains! And look out for the Taxan Ergovision monitors because "seeing is believing!"

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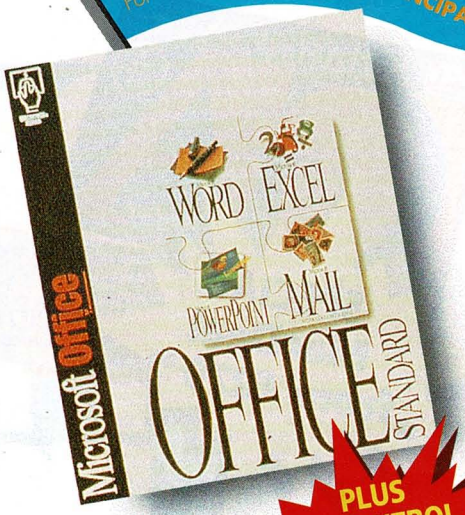

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No wonder **Microsoft Office** is the world's most popular office suite. And here's your EXCLUSIVE chance to buy it AND get a copy of **In Control** absolutely FREE!

In Control is your complete Personal Information Manager for the Mac. Much more than a simple calendar program, In Control adapts to any organisation style, helping you plan activities and organise your priorities the way you're used to working!

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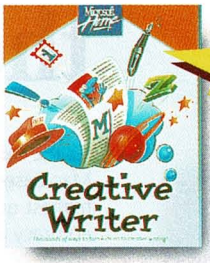
Creative Writer

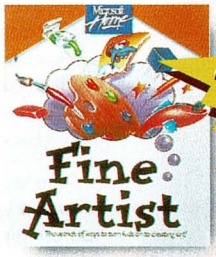
The perfect writing tool for children! Hours of fun and inspiration for the 8-14 age group. **Microsoft Creative Writer** has over 8,000 story starters, step-by-step projects for creating cards and banners, plus clip art, spellchecker, thesaurus, crazy animations, even a joke teller! Brilliant value.



MacDeal £33.00

Fine Artist

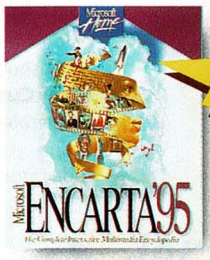
Children love to be creative, and **Microsoft Fine Artist** lets them be just that! Design illustrations from paintings to comic strips, watch crazy animations and enjoy 300 wacky sounds – even explore multimedia! A winner all the way at this price!



MacDeal £29.00

Encarta '95

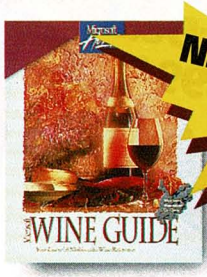
Imagine the information from 28 encyclopaedias on a single CD-ROM, and you've imagined **Microsoft Encarta '95!** Crammed with over 9 million words, 26,000 articles and 15,000 multimedia elements. It's bang up to date, so order now!



MacDeal £65.00

Wine Guide

Oz Clarke knows a thing or two about wine, and in **Microsoft Wine Guide** he shares his knowledge with you, wine expert or not. There's a database of over 6000 wines, help in choosing the most suitable wines for a meal, which vintages are the best, methods of decanting, and much more. Great value!



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Behind the Mask...

It's the **Scitex MaskCutter!** This exciting new Mac-based masking software gives you the highest quality masking with unparalleled accuracy and speed!

MaskCutter opens TIFF, EPS and Scitex CT images for masking. Images can be viewed in full 24-bit colour, or each separation displayed as a grey-scale image. Masking is done via six tools, AutoMask, DensityMask, Polygon, Smooth Polygon, Rectangle and Oval, which can be used interchangeably when creating the mask path.

The secret of MaskCutter is in its speed, coupled to the AutoMask tool which performs automatic edge detection along a specific contour of the hi-res image to be masked. Imagine the time that saves!

Ideal for those who work with Adobe Photoshop and other similar packages, **Scitex MaskCutter** operates on any Mac, and is accelerated for PowerPCs. Once you've seen it in action, you won't want to be without it! So order today from one of the dealers shown below.

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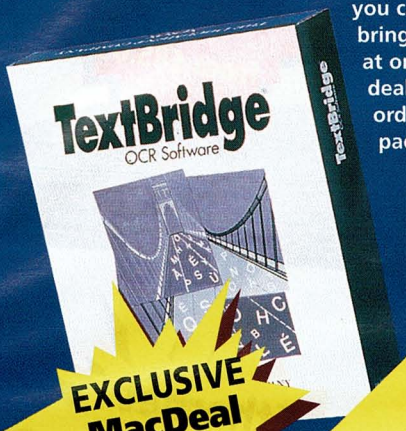

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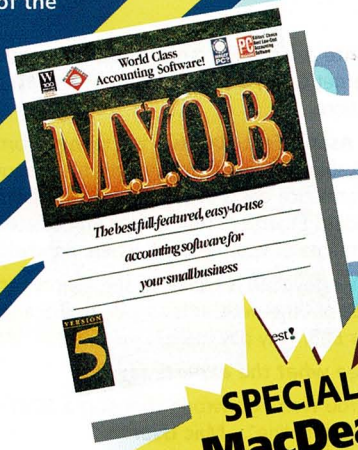

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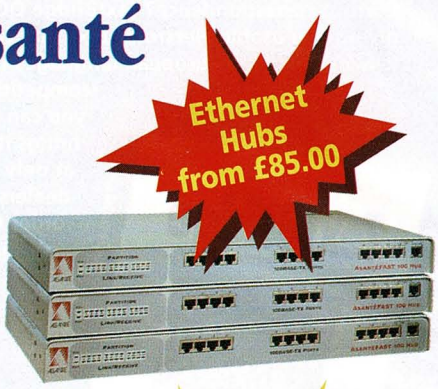

Asanté offers a full range of products including Ethernet cards, Transceivers, Hubs and 100BaseT solutions.

The **AsantéFast 100 Hub** is a high performance, stackable Fast Ethernet Hub which can provide instant performance gains of up to 10 times faster than standard Ethernet! That means immediate relief for segments of your network where bandwidth is tight.

Such innovation is typical of the Asanté range. And with prices of Ethernet Cards as low as £55 and Ethernet Hubs from £85, why pay more?

See what the experts say...

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These typical reviews demonstrate why Asanté is acknowledged as a leading developer and manufacturer in the demanding field of network hardware and software products. Quite simply, for all your networking needs Asanté has the answer.

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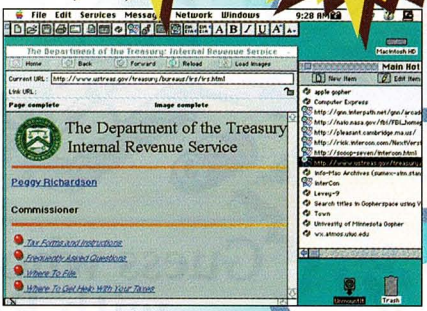

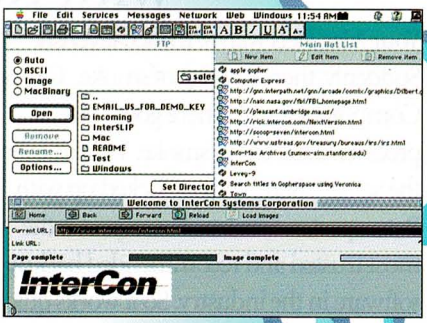

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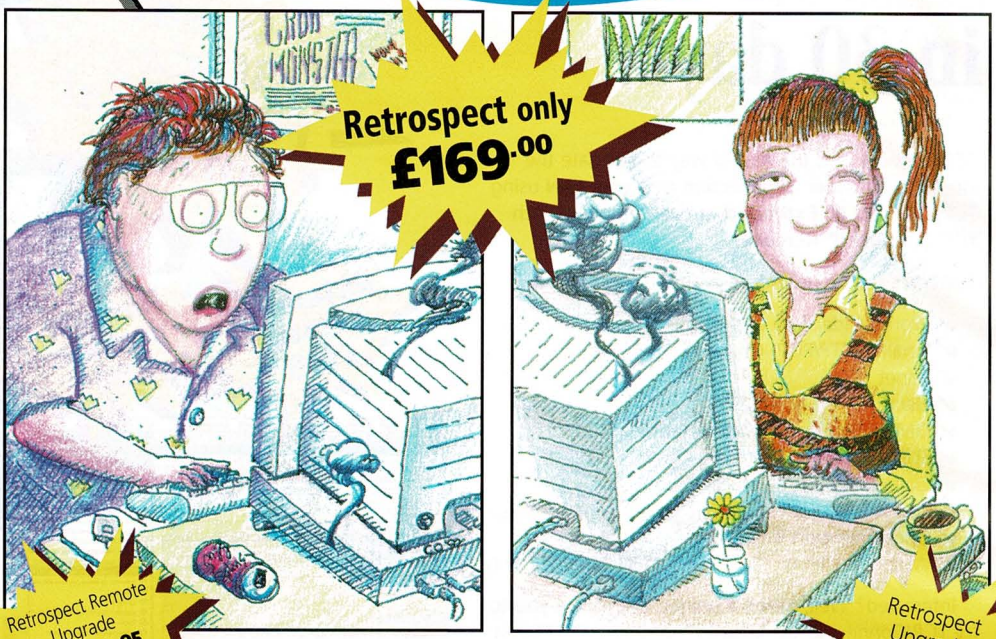

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Your Mac feels warm. In fact, feverish. Suddenly, there's a wisp of smoke. Oh, no! Computer Crash! There goes your precious data. Up in smoke. Will life ever be the same? Sure. If you backed up with Retrospect, no sweat. Retrospect is the most trusted and recommended backup software in the industry. So it works quickly and easily. Friendly. Stores and protects your data simply, smartly. Plus it has key features like comprehensive scheduling, compression, encryption, and single-pass restores. Backup a network of Macs with Retrospect Remote.

After all, if your data was worth creating, it's worth protecting. So smile. Retrospect protects that too.

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If you use Quark XPress, then QX-Tools are for you! This collection of 10 XTensions enhances usability, providing customised toolbars with single-click access to all XPress commands. Scale multiple objects, print spot colours as process, run Photoshop-compatible plug-in images in XPress pages, use floatir palettes – QX-Tools let you do all these and much more! RRP is £109, but the extra special MacDeals price is £99. Order now

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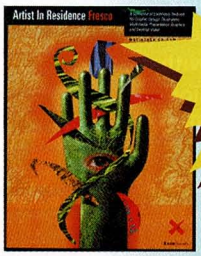

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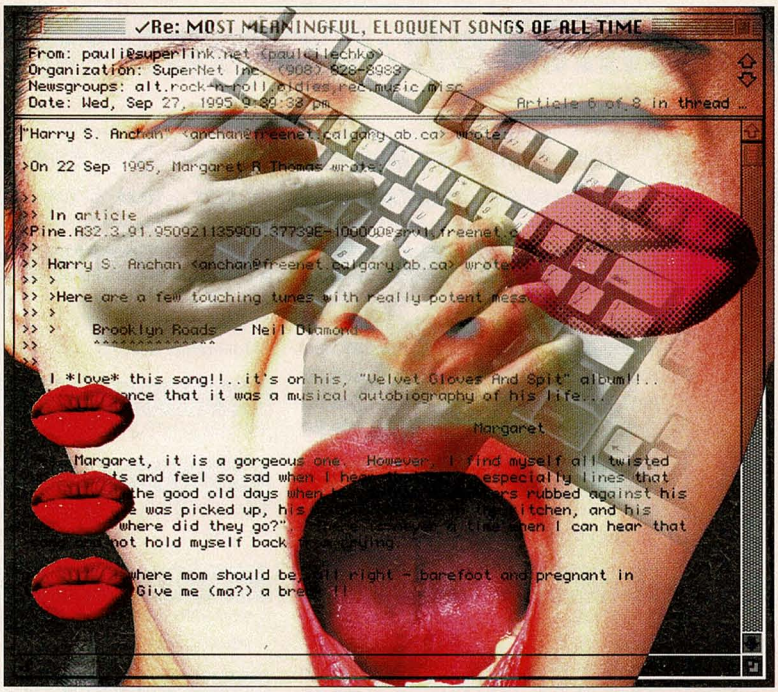
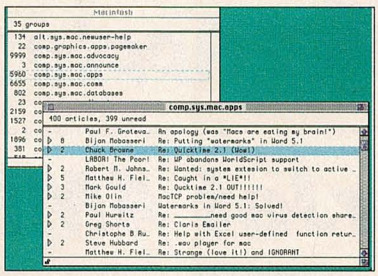
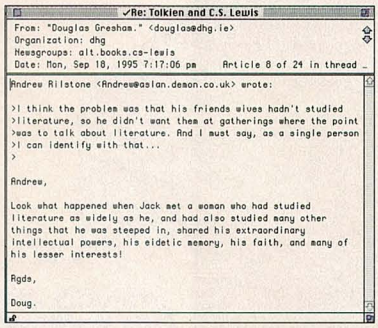

✓Re: MOST MEANINGFUL, ELOQUENT SONGS OF ALL TIME
From: paul@superlink.net (paul ilechko)
Organization: SuperNet Inc. (908) 828-8988
Newsgroups: alt.rock-n-roll.oldies,rec.music.misc
Date: Wed, Sep 27, 1995 9:39:38 pm
Article 6 of 8 in thread ...
"Harry S. Anchan" <anchan@freenet.calgary.ab.ca> wrote:
>On 22 Sep 1995, Margaret A Thomas wrote:
>>
>> In article
>> Harry S. Anchan <anchan@freenet.calgary.ab.ca> wrote:
>> >
>> >Here are a few touching tunes with really potent mess
>> >
>> > Brooklyn Roads - Neil Diamond
>>
>> I *love* this song!!..it's on his, "Velvet Gloves And Spit" album!!..
>> once that it was a musical autobiography of his life...
Margaret
Margaret, it is a gorgeous one. However, I find myself all twisted
and feel so sad when I
especially lines that
the good old days when
rs rubbed against his
was picked up, his
itchen, and his
where did they go?".
hen I can hear that
not hold myself back
where mom should be,
Give me (ma?) a bre


Macintosh
35 groups
134 alt.sys.mac.newuser-help
22 comp.graphics.apps.pagemaker
9999 comp.sys.mac.advocacy
3 comp.sys.mac.announce
5960 comp.sys.mac.apps
6655 comp.sys.mac.comm
802 comp.sys.mac.databases
comp.sys.mac.apps
400 articles, 399 unread
Paul F. Grateva.. An apology (was "Mace are eating my brain!")
Bijan Nabasseri Re: Putting "watermarks" in Word 5.1
Chuck Broome Re: QuickTime 2.1 (Wow!)
LARGR! The Poor! Re: UP abandons WorldScript support
Robert M. Johns.. Re: Wanted: system extension to switch to active ..
Matthew H. Fiel.. Re: Caught in a *LIE*!!
Mark Gould Re: Quicktime 2.1 OUT!!!!!!
Mike Olin MacTCP problem/need help!
Bijan Nabasseri Watermarks in Word 5.1: Solved!
Paul Hurwitz Re: ...need good mac virus detection share..
Greg Shorts Re: Claris Emailer
Christophe B Au.. Re: Help with Excel user-defined function retur..
Steve Hubbard Re: .wav player for mac
Matthew H. Fiel.. Re: Strange (love it!) and IGNORANT

There are numerous groups where Mac enthusiasts can discuss programs, hardware or games.


✓Re: Tolkien and C.S. Lewis
From: "Douglas Gresham." <douglas@dhg.ie>
Organization: dhg
Newsgroups: alt.books.cs-lewis
Date: Mon, Sep 18, 1995 7:17:06 pm
Article 8 of 24 in thread ...
Andrew Rilstone <Andrew@aslan.demon.co.uk> wrote:
>I think the problem was that his friends wives hadn't studied
>literature, so he didn't want them at gatherings where the point
>was to talk about literature. And I must say, as a single person
>I can identify with that...
>
Andrew,
Look what happened when Jack met a woman who had studied
literature as widely as he, and had also studied many other
things that he was steeped in, shared his extraordinary
intellectual powers, his eidetic memory, his faith, and many of
his lesser interests!
Agds,
Doug.

Usenet contains newsgroups on almost every subject you can think of, where people discuss their common passions.

go their different ways after that.

Making your way through the full list of groups to find the one you want would take up too much time, so you can create subscription lists. These are short lists of groups you visit on a regular basis – you can just add and delete groups in a list at will.

Each group window comprises a list of the current messages you haven't read, with the name of the author and a brief subject. Each list can become a thread – a string of messages and responses on one subject, which you can move through. Just double-click on anything that interests you to start. Once you've read something, it's marked as such and won't be listed next time you call up the group. If you leave a message unread for long enough, it will be deleted to make room on the servers for new missives.

Usenet is simple to use once you get used to it. It's also the most vibrant and dizzying part of the Net – there's something for everyone here. **MF**

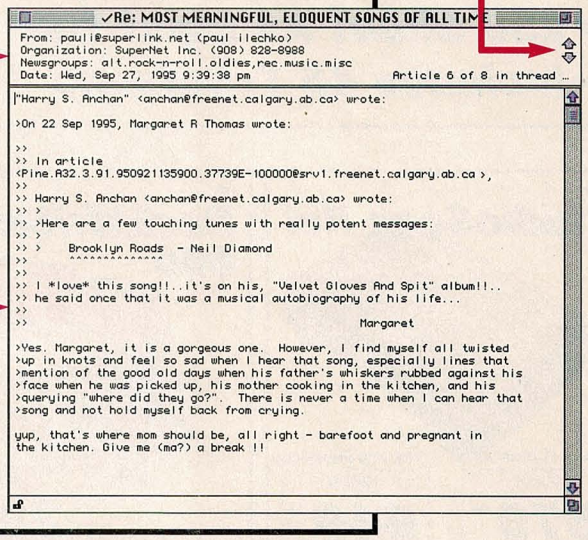
MESSAGE IN A BOTTLE

Open up a message and you could discover a long-running discussion.

Each message header tells you who wrote it and when, and which groups it's been posted to.

A typical newsgroup message can be a complex set of quotes from replies to an older initial posting. Arrows on the left hand side of each line of a quote are used to indicate the chronology – the oldest message in the sequence will have the most arrows. You'll see there's a kind of Russian doll structure to the message, with one quote including a quote from a previous posting, which in turn includes another... and so on.

Use the arrows to move backwards and forwards through the thread of articles.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>> In article
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>> Harry S. Anchan <anchan@freenet.calgary.ab.ca> wrote:
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>> >
>> > Brooklyn Roads - Neil Diamond
>>
>> I *love* this song!!..it's on his, "Velvet Gloves And Spit" album!!..
>> he said once that it was a musical autobiography of his life...
>>
Margaret
>Yes. Margaret, it is a gorgeous one. However, I find myself all twisted
>up in knots and feel so sad when I hear that song, especially lines that
>mention of the good old days when his father's whiskers rubbed against his
>face when he was picked up, his mother cooking in the kitchen, and his
>querying "where did they go?". There is never a time when I can hear that
>song and not hold myself back from crying.
yup, that's where mom should be, all right - barefoot and pregnant in
the kitchen. Give me (ma?) a break !!

RULES OF ENGAGEMENT

Getting involved with Usenet can be a lot of fun, but always remember this is real life. You can come into contact with rude, obnoxious or simply rather impatient people. Rightly or wrongly, some are impatient of newcomers who haven't learned the ropes yet. Here are the guidelines you should follow if you want to avoid the worst of Usenet:

■ Make the most of FAQs (Frequently Asked Questions). These are compilations posted up to deal with the most common points raised by newcomers. If you're stuck or lost, look for any FAQs in the group you're reading. There are loads of FAQs in the group news.answers.

■ There are groups specially for new arrivals on Usenet – including news.groups.questions and alt.newbie. You can ask for help here, and some particularly lovely people may well offer assistance.

■ It's worth getting to know the groups you want to participate in before you start posting. Read plenty of other messages – it's the best way to see which groups are serious forums and which are shouting matches.

■ If you're posting a message, make sure it's relevant for the group you're sending it to. Remember people are paying to read your words.

■ Advertising products is completely out, and you can expect to receive many irate e-mails if you try it. Some unfortunate firms have posted an advert across thousands of groups and lived to regret it. But if you're looking to buy or sell second-hand goods, there are some 'marketplace' groups you can use.

■ It's a good idea to cut and paste someone else's comments into your message if it's a direct response – people may not have read the original. But don't quote an entire monologue just so you can say 'I agree' at the end. Express yourself!

■ AS WITH STANDARD E-MAILS, WRITING IN UPPER CASE ISN'T RECOMMENDED – IT'S DIFFICULT TO READ FOR LONG.

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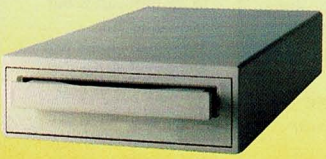

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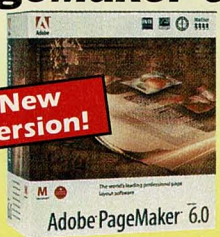

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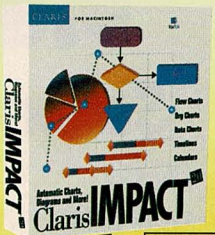

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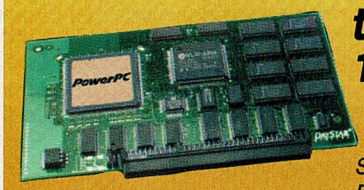

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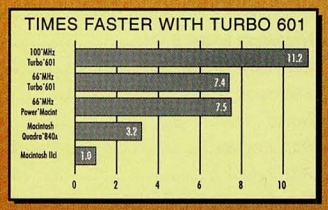

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Starting to function

All proper spreadsheet applications come with a set of predefined 'functions'. You may think they're tricky and tedious, but Rod Lawton proves they're invaluable.

Apart from the standard mathematical functions, spreadsheets also provide an index of additional, specialised functions, which you can paste into cells, substituting your own values or cell references for those provided. It's not as complicated as it sounds – and these formulae can make your spreadsheet do some very unexpected things.

We'll look at the functions provided with *ClarisWorks*, but note that those incorporated in *Excel*, a dedicated spreadsheet package, do all these things and much more besides...

Financial functions

Spreadsheets are usually reckoned to be the realm of accountants, so it's no surprise that they offer some rather specialised financial functions. Most of these revolve around investment management, which invariably involves making complex calculations of compound interest, regular payments and rates of return.

So, for example, you could use these *ClarisWorks* functions to work out how much you would save if you put a fixed amount by every month – all you need to know is the interest rate and how long you're going to be saving for. Or you could do things in reverse and start from the sum you want to save, then work out how much you're going to have to put by each month. There are all sorts of permutations on the same theme, but they all revolve around investments. Let's look at a couple of examples.

If you make a monthly payment of £100 (remember to type payments in as negative numbers) at an interest rate of 1% per month for 36 months, you would use the formula **=FV(B2;B3;B1)** in the 'Final sum' cell to generate how much money you'll save.

Suppose you were saving up for a car that cost £6,000. The interest rate is 1% per month and you've got 36 months to save the money. You enter £6,000 in the 'Final sum' field and the formula **=PMT(B2;B3;0;B4)** in the 'Monthly payment' cell to work out what you must set aside each month.

These are just two examples of the kind of financial calculations you can make using built-in formulae.

	A	B	C
1	Monthly payment	-£ 100.00	
2	Interest rate	1.00%	
3	Term (months)	36	
4	Final sum	£ 4307.69	
5			

Use the formula **=FV(B2;B3;B1)** in the 'Final sum' cell to work out how much your savings will be worth if you put aside a fixed sum each month at a known interest rate for a fixed term.

	A	B	C
1	Monthly payment	-£ 139.29	
2	Interest rate	1.00%	
3	Term (months)	36	
4	Final sum	£ 6000.00	
5			

If you know how much money you need, when and the interest rate, use the formula **=PMT(B2;B3;0;B4)** in the 'Monthly payment' cell to find out how much you need to put aside each month.

Have you got the time?

As well as being able to store dates and times, spreadsheets can also carry out calculations with them, and are capable of converting them from one format to another. For example, if you want to insert the current date into a cell, you simply enter the formula **=NOW()** and make sure you've given the cell a date format.

If you're calculating something like invoice due dates, spreadsheets offer a valuable function. You can calculate the date, say, 30 days from the day the invoice was sent out, and display it in a separate cell. This is because although the date is being displayed in words, *ClarisWorks* is storing it as a number. If you add the number '3' to it and then display the result as a date, you get the date three days after the first. So you could add two cells below the first one, one containing a number (the number of days you want to add to the current date), the other containing the new date. This final cell contains the simple formula **=A1+A2**.

	A	B
1	Thursday, September 21, 1995	
2		
3		
4		
5		

The =NOW() function simply puts the current date into the cell (provided you've set it up with a date format). This can be very useful.

	A	B
1	Thursday, September 21, 1995	
2	7	
3	Thursday, September 28, 1995	
4		
5		

You can add any number of days to a date using the simple formula **=A1+A2**. Provided the cell is given a date format, it will convert the numeric value into a proper date.

It's not logical, captain

Spreadsheets don't just crunch numbers – they can also act 'intelligently'. For example, you might be paying back your elderly aunt the money she lent you to buy a new car, and she might be such a kindly aunt that she lets you skip a month if you're especially hard up. Now if you keep a record of your income and outgoings, you could set up your spreadsheet to check whether you can afford to pay off an instalment next month. If you can, it is deducted from your bank

MACROS

You can 'add' your own functions by creating 'macros' (automated sequences). Different spreadsheet applications handle these in different ways, so check your manual.

FORMATTING SHORTCUT

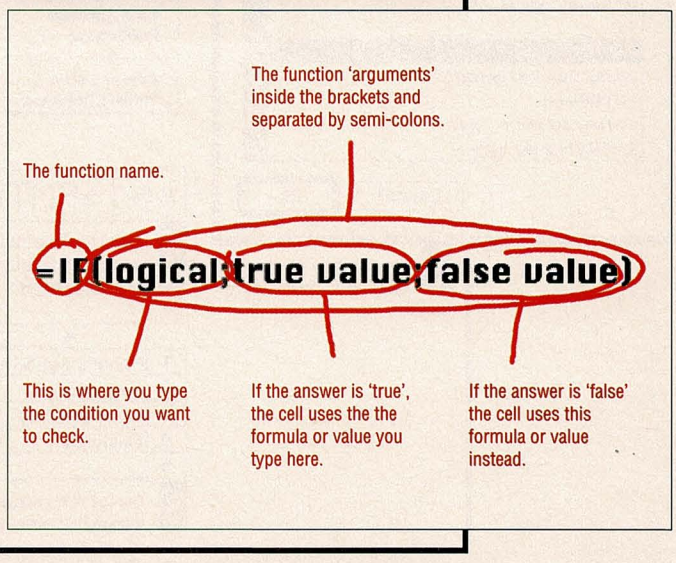
In *ClarisWorks*, just double-click on a cell to call up its number format dialogue.

Continued on next page

ANATOMY OF A FUNCTION

All functions share the same basic anatomy. The function name is followed by a series of 'arguments' separated by semi-colons, all enclosed in a pair of brackets after the function name. The arguments can be values you type in manually, cell references (enabling you to use the results of other calculations) or other formulae (which starts to get more complicated).

Here's an example. The IF function is one of the most useful since it enables your spreadsheet to 'decide' on two outcomes, depending on the circumstances. This diagram shows how the function works, and where you type your own information.


The function 'arguments' inside the brackets and separated by semi-colons.
The function name.
=IF(logical;true value;false value)
This is where you type the condition you want to check.
If the answer is 'true', the cell uses the the formula or value you type here.
If the answer is 'false' the cell uses this formula or value instead.

HIDDEN POWER

Next time we'll look at mathematical, statistical and text functions, and some more of the amazing things that a simple spreadsheet can do.

	A	B
1	Spare cash	£ 150.00
2	Money paid to aunt	£ 139.00
3	Loan remaining	£ 5861
4		
5		

Using the formula **=IF(B1>139;139;0)**, your spreadsheet decides whether your aunt gets paid or not, depending on how much cash you have.

	A	B
1	Spare cash	£ 130.00
2	Money paid to aunt	£ 0.00
3	Loan remaining	£ 6000
4		
5		

If the amount in your 'Spare cash' cell is less than £139, the poor old dear gets nothing.

LOOK UP YOUR FRIENDS

Using *ClarisWorks'* LOOKUP function you could create a phone list where you simply type in your friend's name to get their phone number.

balance and the amount of the loan to your aunt is correspondingly reduced. If not, you don't pay any money back and your loan doesn't reduce.

It's easy once you know how. To keep things simple, let's just have a set of cells labelled 'Spare cash', 'Money paid to aunt' and 'Loan remaining'.

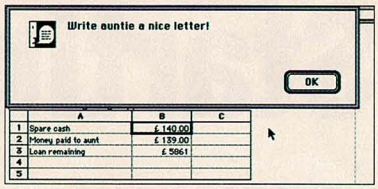
The 'Spare cash' cell contains the cash you have left after the month's expenses (which is likely to be the result of lots of other calculations). The 'Loan remaining' cell is the outstanding sum minus the money you're paying back this month. If we assume you still owe £6,000, and you've agreed to pay back £139 per month, then this formula is simply **=6000-B2**.

The tricky formula is in the 'Money paid to aunt' cell, which is **=IF(B1>139;139;0)**. This is simpler than it looks. The IF function (like all functions) acts on the contents of the brackets, which have to be in the right form. The first part (before the first semi-colon) is the thing the IF function is checking – in this case that you have more money left over than the size of the repayment (B1>139). The second part, between the two semi-colons, is what goes in the cell if the result is true. If it's not true (that is, if the contents of cell B1 are not greater than 139), the formula puts the last part (after the second semi-colon) into the cell. It's easy once you've worked through it a few times.

IF isn't the only logical function. You can check whether two conditions are true with AND – so you can check that you have enough money AND that you still owe over £5,000. You can also check that conditions are NOT true and that one or other of two conditions are true (OR). Once you can handle logical functions, spreadsheets are very smart pieces of software.

We want information

Spreadsheets can also feed back information to you, which is where they start to get clever. You do need to get the hang of the logical functions we've just looked at, but once you've done this you can instruct your spreadsheet to display warnings or sound a beep when the wrong thing happens.



Using *ClarisWorks'* ALERT function within an IF function with **=IF(B2=0;ALERT("Write auntie a nice letter!");"")** you can display an alert box if you've got too little money to pay your aunt.

	A	B	C
1	2	1	Hello
2	Goodbye	2	Goodbye
3		3	Not today thank you
4		4	We've got one already
5		5	A quarter past three
6		6	It just jumped out at me
7		7	She's my secretary

You can use the LOOKUP function **=LOOKUP(A1;B1..B7;C1..C7)** to generate one of several replies, depending on the contents of cell A1 – which might contain your bank balance, a phone number or even a greeting.

To take the example above, you could get your spreadsheet to display a message warning you that you can't repay your aunt. You simply add a 'Message' cell below the others and insert the formula **=IF(B2=0;ALERT("Write auntie a nice letter!");"")**. This is another IF formula, and it checks to see if you paid your aunt any money this month. If the 'Money paid to aunt' cell is empty, this formula then puts **ALERT("Write auntie a nice letter!")** into the cell. This function beeps and puts an alert box on the screen containing the text in quotes. When you cancel the alert, the text is put into the cell. If you do pay your aunt, the condition isn't met and no text ("") is put into the cell.

There are other functions available in *ClarisWorks* that fall under the general umbrella of 'information'. For example, you could keep a list of replies in one column of cells, a list of corresponding numbers in another and use the formula **=LOOKUP(A1;B1..B7;C1..C7)** to generate a reply based on the number you type into cell A1. This isn't an entirely flippant function – you could use it to indicate the necessary course of action based on your company's end-of-month profit figures.

And there's more...

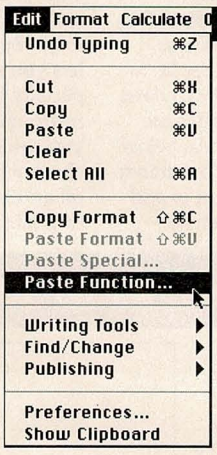
Once you get the hang of functions you'll find they dramatically increase the power and flexibility – and 'intelligence' – of your spreadsheets. And this month we've only looked at about half of the available types! Whether you're using *ClarisWorks*, *Excel* or some other spreadsheet application, it's time to discover their full potential, so start experimenting today. **MF**

HOW TO PASTE IN A FUNCTION

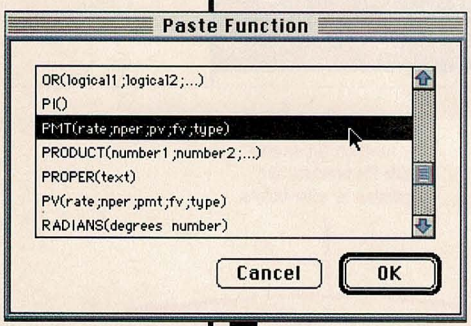
Whichever spreadsheet you're using, the principle of functions is much the same. In *ClarisWorks*, for example, you do the following:

	A	B	C
1	Monthly payment		
2	Interest rate	1.00%	
3	Term (months)	36	
4	Final sum	£ 6000.00	
5			

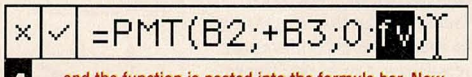
1 Select the cell where you want to display the result of the function.



2 Select the **Paste Function...** menu option in *ClarisWorks*, or its equivalent in your application.



3 You can then choose the function you want from a scrolling list...



4 ...and the function is pasted into the formula bar. Now you have to insert your own cell references and values over the default entries.

	A	B	C
1	Monthly payment	-£ 139.29	
2	Interest rate	1.00%	
3	Term (months)	36	
4	Final sum	£ 6000.00	
5			

5 The cell now contains the calculated value, which changes whenever you change any of the other variables.

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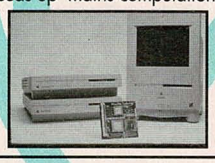

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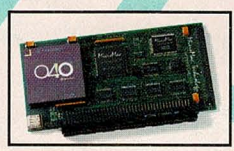

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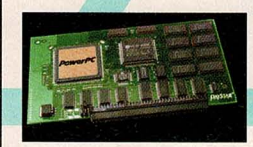

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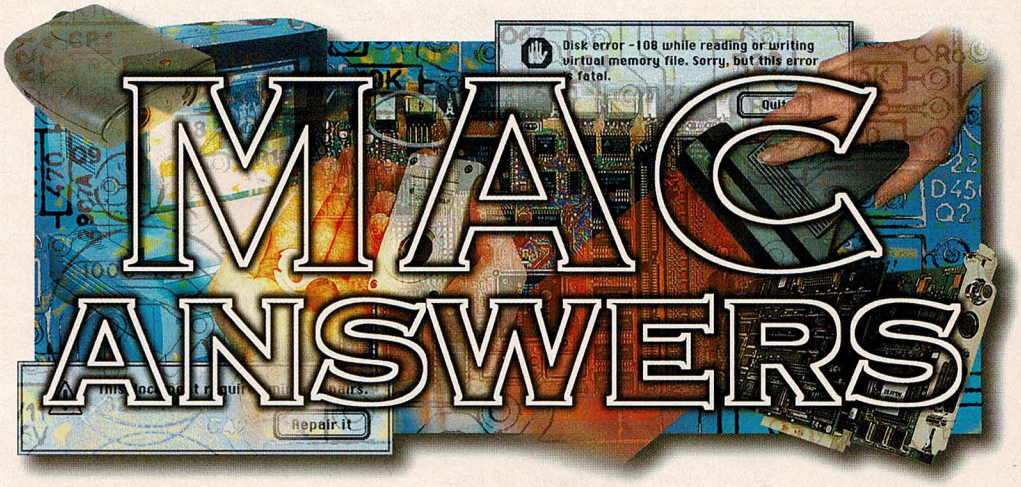


MAC ANSWERS

Whether you have problems with software, fonts or RAM, or you're in a quandary about upgrading options, the MACFORMAT experts will find an answer.

Welcome to the section of MACFORMAT dedicated to solving your Mac problems. This issue's experts are Jim Chandler, Martin Jones and Alex Summersby. (Well, okay, maybe *expert* isn't quite the word.) If you have a query, use the form on page 78 or e-mail us at **macformat@futurenet.co.uk** including the word 'MacAnswers' in the Subject field. We can't answer queries over the phone, because we have to go to the library to look up the answers first.

Back to the future

SOFTWARE

Q *I have the early* ClarisWorks 1.0 *installed. When I try to open a document that was created in later versions of* ClarisWorks, *I get a message saying that it cannot be opened. I can't believe you need to update every time a new version comes out. Is this the case, or is there a newer Claris XTND INIT, or something else?*
Bill Laidlaw
London SW6

A Sorry, you've stumbled on a sad fact of life. Newer versions of software (and not just *ClarisWorks)* tend to incorporate new features – that's the point of upgrades, after all. Obviously, older versions of software can't use the features of later versions, and the file structure of documents created by newer versions tends to be different because it incorporates support for these new features, so older versions can't open the new documents. Claris's XTND system, which enables *ClarisWorks* to open many documents created by other applications, doesn't support the opening of later version documents into version 1.

One question though: where are you getting the documents you need to open? If you were creating them yourself, they'd be in the correct format. Some applications (including *Microsoft Word, Nisus Writer* and other Mac word processors) have an option under **Save As...** to save in the formats of earlier versions, but *ClarisWorks* doesn't. You could ask whoever gives you these documents to try saving as plain text or RTF, for example, which you can then open in your version of the program, providing you have the appropriate XTND translators in the Claris folder in your System folder.

Your best bet would be to bite the bullet and buy a more up-to-date version of *ClarisWorks* (especially now that version 4 is here – see page 90). They're not that expensive, and Claris do offer good value upgrades. Contact them on 0181 756 0101. **JC**

Breaking up is easy to do

SYSTEM SOFTWARE

Q *I am experiencing breakup of some font names when I pull down the Font menu in* ClarisWorks 2.0. *There is either a blank space or on other occasions a mottled area. I can select fonts, but I can't identify them!*

Also, my System size has doubled since I increased my RAM from 4Mb to 10Mb. The System's now taking up almost 4Mb. Why?
Stuart Harper
Edinburgh

A You might guess that these problems are both down to some sort of corruption somewhere in your System, but in fact they are almost certainly unrelated.

The memory problem is one of the most common you'll find when you upgrade a Macintosh. All you need to do is go to the Memory Control Panel and turn on 32-bit addressing. This has to do with how your Mac deals with its installed memory. Without 32-bit addressing, it is able to use only 8Mb of your 10Mb total RAM. However, it can still 'see' the other 2Mb, so it reports this as part of the System heap – the slice of RAM allocated to the System, including the Extensions you've loaded. This effectively doubles the amount of RAM that your System *appears* to occupy. Turn 32-bit addressing on and all should be well.

As for the Claris Fonts menu, your Claris Fonts file has probably become corrupted. If you have your original *ClarisWorks* disks, just copy the Claris Fonts file into the Claris folder inside your System folder (not the *ClarisWorks* program folder, wherever you keep that). When you get an alert asking if you want to replace the version of the file that's already there, click OK. If *ClarisWorks* was pre-installed on your Mac and you don't have original program disks, just quit out of *ClarisWorks*, open up the Claris folder inside your System folder, and drag the Claris Fonts file out of the folder. Now launch *ClarisWorks* again and the file should be recreated from scratch – but be patient: the program will take longer to load while it is doing this and going through all its Preferences, double-checking them. If everything is okay now, you can trash the original Claris Fonts file you removed.

The problem is very unlikely to be the font files themselves, but it's worth checking that you can still change fonts, resize them and so on in other applications. While you're at it, if you're using *ATM*, check that it is switched on (in the ATM Control Panel) and working properly. If none of this solves the problem, there may be some corruption in your *ClarisWorks*

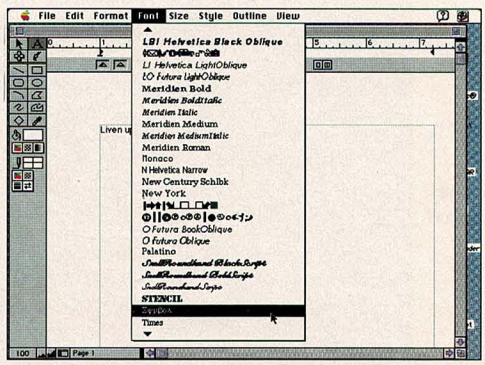
Continued on next page

WHO'S JIM CHANDLER?

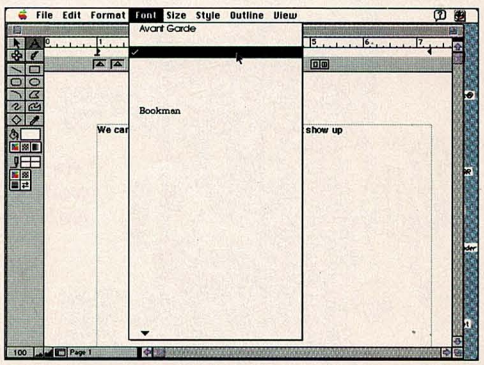
Jim has been working in the professional printing industry for eight years, and uses all the major software applications on both Macs and PC compatibles.

WHO'S MARTIN JONES?

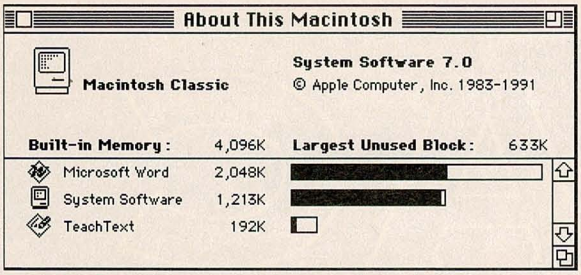
Martin is an American and has worked in technical support for a very long time indeed. He's even won awards from Apple for excellence in this field.



ClarisWorks (version 2 here) can preview the fonts available in its Fonts menu. Great, unless you really need to know the *name* of the font you're selecting... See 'Breaking up is easy to do'.



What's more, the display of fonts can be prone to playing up – we've skilfully managed to bugger up the display, though we can still select all the fonts. Wasn't that clever of us? (Derek, help!)



With 4Mb of RAM, the Classic doesn't have much room for manoeuvre. Your best bet is to quit all applications before you launch another one.

application itself and you should re-install the program from your original or backup disks. **MJ/AS**

Memories are made of this

MEMORY

Q *My spouse and I have a couple of questions relating to our Macintosh Classic, which has been upgraded to 4Mb of memory and a 40Mb hard drive.*
1. We think there may be a problem with its memory. We quite often get the message that there isn't enough memory, even though the programs loaded are only basic – System 7 and Microsoft Word, *nothing else. Could this use up all of the RAM?*
2. When trying to run some of the programs on this month's MACFORMAT *disk, we get a box saying that the application 'unknown' has unexpectedly quit, because an error of type 12 occurred. We believe it has something to do with our Mac, and isn't a problem with the disk or programs.*
3. We would also like to know if it's possible to upgrade our computer even more, so that we don't keep getting these memory problems, and how much this would cost us. I know the best solution would be to buy a newer computer, but at the moment that is unfortunately out of the question.
William Reid
Paris, France

A 1. The problem with your Mac's memory is that there isn't much of it. The screenshot of your 'About this Macintosh' box shows that, of a total of 4,096K, you have only 633K available to run other programs. There are some programs which will run in such a small amount of memory, but feature-laden commercial applications will need much more. Your best strategy would be to quit out of *Word* and *TeachText* when you're not using them, *then* launch the application you want. With no applications running, you'll have over 2,800K available, although many recent programs need more than you have installed in total.
2. An error of type 12 is an 'unimplemented core routine', which usually means that a program has given the Mac an instruction that the processor doesn't understand. This type of error often occurs when you're using shareware and public domain programs, because the programmers are often relatively inexperienced and can't get testers to find all the bugs in their programs before they're released. If this error seems confined to this kind of program and otherwise doesn't happen often, there's probably nothing wrong with your system. But the cause could also be a shortage of RAM, so if you manage to solve your first problem, this one may clear up too.
3. The Mac Classic is not a very upgradable computer, and I'm afraid you've reached the limit as far as memory is concerned. Some Macs use space on their hard drives as 'virtual memory', but the Classic's processor can't do this. For the same reason, Connectix's *RAM Doubler* software, which can give extra memory space on many Macs, won't work either.

There are some simple techniques to speed up your Mac – see this issue's feature starting on page 47. But if you really want more memory, then your best option is to buy a better Mac. It needn't cost the earth – look through MACFORMAT's Free Reader Ads for a second-hand one. If you're strapped for cash and want to squeeze some extra memory out of your Classic, then you could try getting System 6. It lacks many of System 7's nice features, but it takes up much less RAM. If the programs you use will run under it, it might be a worthwhile last resort. **JC**

The 6200 dollar question

UPGRADING

Q *Would I be better off, in terms of CPU speed, CD-ROM speed and future-proofing, if I upgraded from my LC630 to a Performa 6200? Will my 16Mb SIMM work in a 6200? Will my present software still run? I have 30-plus CD-ROMs, Living Books,* ClarisWorks 3.0 *and more. Or is it wiser to wait and see what Apple do next, and risk loss of resale value on my 630?*
Steve Plater
Sevenoaks, Kent

A The 6200 is a PowerPC-based machine – it's called a Performa, but it's a PowerMac. So it runs native PowerMac programs faster than their 680x0 equivalents on older Macs. Your present software should run, but PowerMacs run standard Mac software under emulation, so some may not be

HELPFUL BALLOONS!

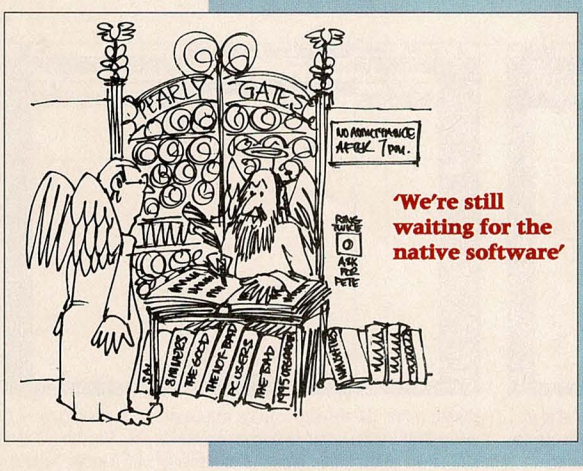
Once you've mastered the basics of your Mac – that is, about three hours after you first start using one – you probably dismiss Balloon Help as an annoying distraction and never turn it on again. In fact it has one potentially very handy use: with Balloon Help on, call up the **About This Macintosh** box from the **Apple** menu. Now when you move the cursor over the bars representing each application you have running, you get a *precise* readout of how much memory that application is currently using – great for troubleshooting those memory problems!

THE PROBLEM WITH POWERMACS...

Basic compatibility

POWERMAC COMPATIBILITY

Q *Microsoft* QuickBasic 1.05 *ran fine on my PowerBook 100, but now crashes when I try to load it on my PowerMac with the error messages 'Type 28' and 'Floating Point co-processor not installed'. The same happens with original and backup copies.*
David S Anderson
Innellan, Argyll



'We're still waiting for the native software'

A Error messages aren't always completely reliable, but in this case the Floating Point co-processor alert does point in the right direction.

In pre-PowerPC Macs, a Floating Point Unit or maths co-processor is an extra chip, separate from the computer's Central Processor chip, specifically designed for certain intensive mathematical calculations. (They're calculations that involve a variable number of decimal places, so the decimal point can be said to 'float'. Get it?) An FPU takes the load off the main processor and speeds up applications that rely on these sorts of calculations, such as high-end graphics and image-manipulation programs, big spreadsheets and such like. Some programs actually demand an FPU and won't run without one – some 3D programs, for example, and apparently *QuickBasic.*

Not all older Macs have an FPU – Apple took the view that 'low-cost' machines like LCs and most Performas, intended for the more modest needs of home users, didn't need one. PowerMacs don't have a separate FPU chip, but the PowerPC chip has both decimal and floating point operations, each carried out independently. So why are you getting the 'no FPU' error?

The root problem is that *QuickBasic* is not PowerMac native (that is, it isn't written specifically for the PowerPC chip). PowerMacs run older, non-native software under emulation, and very fine it is too, but what they emulate is the 'LC' version of the older 68040 CPU chip, not an FPU. In other words, a non-native program behaves for all intents and purposes as if it were running on a Performa 630 (or an equivalent LC machine).

So what can you do? There's a clever piece of shareware called *Software FPU,* which can fool many programs into thinking that an FPU is installed and thus enable them to run on an LC or similar machine – it's on this issue's Cover CD – but you'll need to pay your shareware registration fee to get the new version that will do the business on PowerMacs. It's only $20 or so – much cheaper than getting a plug-in FPU, chip upgrade or new machine.

However, *Software FPU* doesn't work with all applications, and if you want to run 3D graphics or similarly processor-intensive software, your best

as fast as on your LC630. Are you ready to pay for upgrading to native versions of your software too?

The 6200's CD-ROM drive is a quad-speed unit, but most CD-based software is written to run on double-speed drives, not optimised for quad-speeds. In our tests of the new drive (in a Performa 5200) there's negligible speed increase, if any.

Your 16Mb SIMM should work quite happily on the 6200, but not on its own. PowerMacs have 32-bit data paths, but use 16-bit SIMMs, so they need two SIMMs of the same size. If you stick in your spare 16Mb SIMM, you'll need another to make it work.

To wait and see is a tempting option, given Apple's habit of upgrading their machines every few months. But, as you point out, the resale value of your LC630 won't get any higher, and you could end up waiting for ever for the next Mac that's 'just that bit better'. Yes, Apple is moving to a PowerPC-only range, so your 630 isn't 'future-proof', but if your present Mac runs the software you want, it could be all you need for some time. As for speed, you may need to buy native software too to see any marked improvement. Look at what's available, think about how long you want to wait before you buy another Mac, and then decide. **JC**

Wallowing in garbage

HARDWARE

Q *I have a problem with my Duo 210, which typically occurred just after the year's warranty had run out. When I first start it up, if I access the Apple menu all I get is 'About the Finder…'. It takes a lot of hassle to get 'About this Macintosh…', but the real bugbear is what happens using* ClarisWorks *3. I thought at first I had a single corrupted font, but whatever font I use I just get garbage.*

I can sit there for ages pressing the key I want followed by the [delete] key until the correct character does appear. Consequently a simple note can take so long to write that I just give up and resort to pen and paper.

Richard M Herbert, Captain
MV Ilona G
Hoo, Kent

A From the problems you describe, and the sample page you supplied, the problem's probably your keyboard. It seems that your **[option]** key is sticking down. This would account for your 'garbage' characters, and for your getting 'strange' menu options – you access 'About the Finder' by holding down the **[option]** key and 'About this Macintosh' without. You may just need to blow the dust out of the keyboard (try holding it upside-down and giving it a good shake, or invest in one of those little air-squirters that photographers use to clean their lenses), but if this fails to solve the problem, take your Duo to an AppleCentre and ask them to have a look. The keyboard's built-in and there's all kinds of circuitry and gubbins beneath it, so don't fiddle with it yourself. It probably just needs a good clean and the cost shouldn't be too high. **JC**

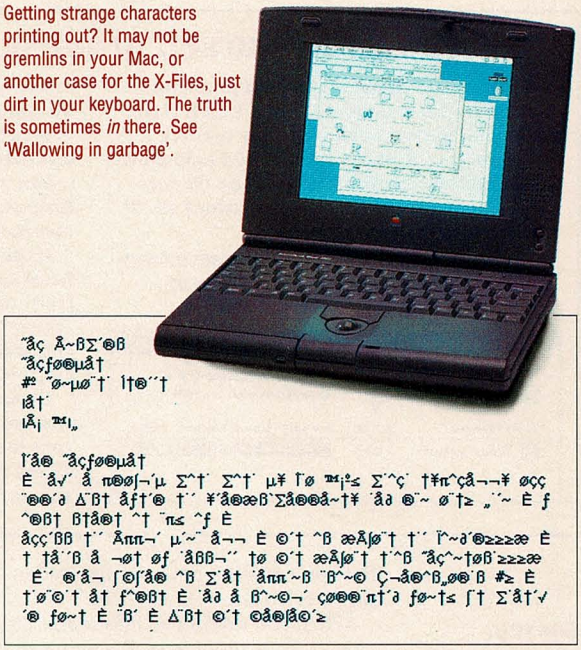
Open and shut case

SYSTEM

Q *1. Why do I constantly get the alert message 'This document could not be opened because the application that created it could not be found'? The annoying thing is that I often get this message when trying to open something on one of the* MACFORMAT *CD-ROMs. Is there any point in including applications or other programs on these discs which people cannot open?*

2. Is there any sort of shareware or other software available that could deal with the 'This document is too large to be opened in TeachText' message?

Marius Pope
Tunbridge Wells



Getting strange characters printing out? It may not be gremlins in your Mac, or another case for the X-Files, just dirt in your keyboard. The truth is sometimes *in* there. See 'Wallowing in garbage'.

A 1. You shouldn't normally get this alert when you attempt to launch an application, only when you double-click on a document file of some type (text, database file, graphic, QuickTime movie, or whatever it may be)

Continued on next page

bet is to invest in the latest PowerMac native version of your chosen program. It's a good idea to use the latest version of any software you rely on – especially if you upgrade your machine.

Unfortunately, Microsoft no longer make *QuickBasic*, so you'll need to take a look at other BASIC packages. See our programming feature on page 83 for some suggestions. **AS**

Crash City USA

POWERMAC COMPATIBILITY

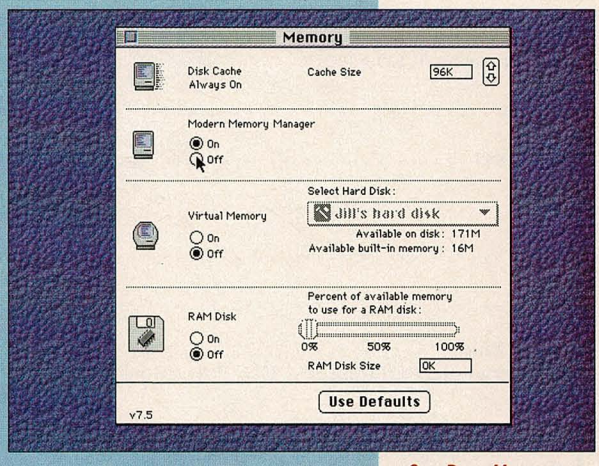
Q *I have recently upgraded to a PowerMac 6100, but it keeps crashing with a 'Type 11' error message. I've tried all the fixes in the 'Bomb Busting' book that came with* MACFORMAT *29 – rebuilding the Desktop, starting without Extensions, even reinstalling the System software, but the problem won't go away. This never happened running exactly the same software on my old Mac IIci – it makes me wonder why I bothered upgrading.*

Stephen Hart
Droitwich

A When Apple introduced the PowerMac range, they impressed everyone with the quality of the emulation system that enabled the new Macs to run software written for older Macs, even though they were based on completely different chips (the PowerPC 601 chip in the PowerMacs, as distinct from the older Motorola 680x0 series). The vast majority of software ran very happily, with no hiccups, so when you upgraded you still had access to a huge library of existing applications.

However, as time goes by, with System software updates as well, some compatibility problems are coming to light – you seem to have discovered one for yourself. When you say you're using the same software you used to use on your IIci, I take it you mean that you haven't upgraded your applications to PowerMac native versions. Some older programs just don't seem to get on with the RAM management system in PowerMacs – crashes with a 'Type 11' error message are a common symptom of this. Try selecting the Memory Control Panel from your Apple menu and turning the Modern Memory Manager option off. This should cure the problem, and shouldn't markedly affect the speed at which your programs run.

Unless, that is, we're talking about Microsoft. You haven't mentioned which application you're using, but there's a well-known bug in Microsoft programs which can cause Type 11 errors to occur on PowerMacs. Microsoft are aware of the problem but haven't managed to track down the exact cause yet, never mind come up with a solution. We'll let you know when we hear of one! **AS**



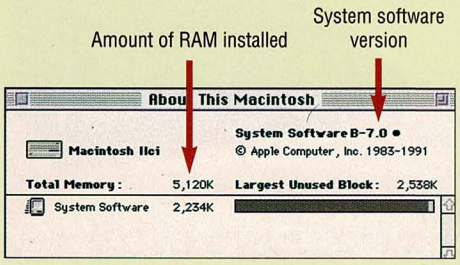
On a PowerMac you get a sometimes bewildering range of options to play with, and some of them can make a difference... Some older programs don't get on very well with the Modern Memory Manager, so you can just turn it off!

The do-it-yourself problem solving guide...

One of the most common causes of problems on the Mac are Extensions or Control Panels clashing in your System Folder. It's easy to check if this is the case. Restart your Mac and hold down **[shift]**. Release the key when you get the message, 'Welcome to Macintosh. Extensions off.' If everything works, then the problem lies in your System Folder. The only way to work out which item is the culprit is by trial and error. Remove a few Extensions and/or Control Panels, then restart your Mac, without holding **[shift]** down. Keep on doing this until the problem no longer occurs, and you've found the offending software.

If this doesn't work, try rebuilding your Desktop. Start up your Mac holding down **[command]** and **[option]**. You'll get a message asking if you want to rebuild the Desktop. Click OK, wait for it to finish rebuilding your Desktop, and see if this solves your problem.

If you're still stuck, use the form below to write to us. We'll need to know a few facts about your Mac, so when you're in the Finder, select About This Macintosh from the Apple Menu. The picture (left) shows what we need to know.



SORTED!

Did you know that if you're waiting for documents to print in the background, you can alter the order in which they'll print? Choose **PrintMonitor** from the Application menu (at the top right of the menu bar). You get a window with a list of all the documents waiting to print – simply drag them up or down to change their printing order!

but don't actually have the application that created it.

When you save a file, information is saved with it about what file type it is and what application created it. When you double-click on a file, your Mac reads this information and looks for the creator application to open the file into. If it doesn't find it, you get this alert. If the file type is one that *TeachText* or *SimpleText* can read, you get a message asking if you want to try opening the file in that instead (which may be behind the second part of your question – but more on that shortly).

The simplest solution is to try to open the file not by double-clicking but by launching an appropriate application first and then using its Open command. Normally you'll have a fair idea of what kind of document it is, so you can try the right application – a word processor for a text file, a graphics program for a graphic, and so on. Some applications are very good at opening (or importing or 'acquiring') foreign file formats – *MS Word* is very good at text files, and *ClarisWorks* is superb if you have the appropriate Translators for the Claris XTND system; *Photoshop* can cope with just about any graphics, and *GraphicConverter* (on this issue's Cover CD) is designed to open graphics and can also save them in other formats.

To make it all simpler, System 7.5 includes a Control Panel called Macintosh Easy Open. Instead of just getting the 'application could not be found' alert, you can choose an application to try opening the file with – and Easy Open can narrow down the choice according to the file type if you want it to, though it can get a bit muddled about what applications can open what files and invite you to open a sound file in *Photoshop*. But once you select an application, it will try to use that to open any subsequent files of the same file type.

However, if you get this alert when you try to launch applications or when you *have* the creator application, then it's possible that your Desktop has become corrupted in some way. The Desktop files keep track of what files go with what applications, what icons each should have, and so on. If you find that your files' or applications' icons start inexplicably reverting from application-specific to generic file or application icons, or any custom icons do the same, a corrupt Desktop file is the most likely culprit. You need to rebuild the Desktop – restart with **[command]** and **[option]** held down.

2. *TeachText*, and its successor *SimpleText*, can open many kinds of text files and some graphics files. They can manage large graphics, but not text files bigger than 32K. This is because they use a text-handling function called TextEdit, which is built into the Operating System, and, for some reason known only to the programmers, TextEdit has a 32K limit. There's no way round this, so if you need to open big text documents, try a full-featured word processor – *Microsoft Word*, for all its faults (like taking up all your free RAM), can cope with files that other WPs fall over at the sight of. **AS**

If you send in a question for the MACFORMAT experts to solve, please fill in and include this form (or a copy of it). And please make sure that you include all the relevant details – version numbers of software and so on – so that we have the best chance of helping you. Send your form and question to:
Mac Answers, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW or fax it to us on 01225 446019.

Name .....

Address .....

.....

.....

.....

Your Mac
(For example, Performa 200, IIfx, PowerBook 145):

.....

System version
(see **About This Macintosh** screenshot above): .....

Amount of RAM
(see **About This Macintosh** screenshot above): .....

Are you using Virtual Memory? ..... **YES/NO**
(This is accessed from the Memory Control Panel under System 7)

Do you have 32-bit addressing turned on? ..... **YES/NO**
(This is accessed from the Memory Control Panel under System 7)

Details of any relevant hardware which could help us to answer your question:

.....

.....

Now, use this space to describe your problem or question. Please include as much relevant information as possible, and continue on a separate sheet if necessary.

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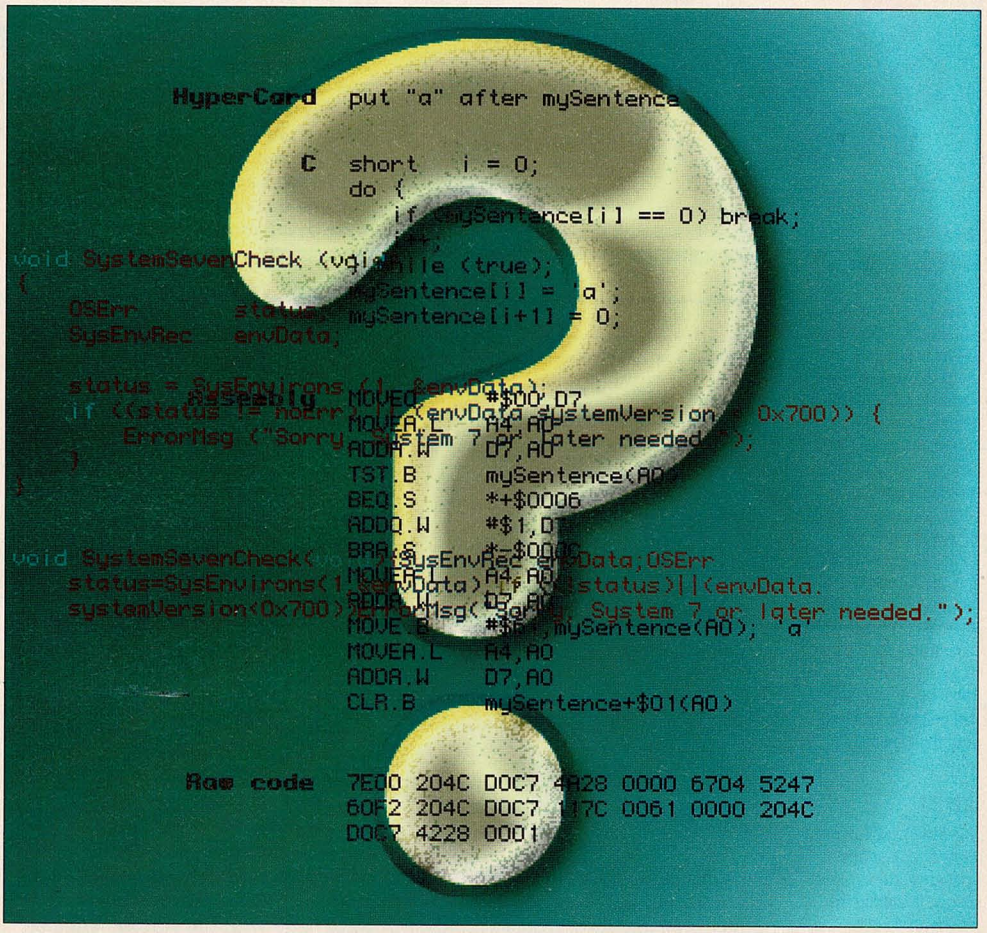


Thanks to various television programmes and films, the word 'programming' conjures up images of sweaty, demented people hunched over a keyboard while pages of numbers flow past on the screen. This is blatantly misleading – not all programmers hunch. But these days anyone can program – all you need is a half decent Mac and some time to learn the lingo.

Before you can understand programming, you need to understand what's going on inside your Mac. Inside every application there is a collection of computer instructions usually called machine code, and this is in charge of everything that the application does. When you double-click on an application in the Finder, the Mac reads the application's code, line

Anyone can program – all you need is a half decent Mac and some time to learn the lingo

by line, and diligently does what it's told. For example, in *Microsoft Word*, the code tells your Mac to open your files, create the windows and menus, and generally run everything that makes up the program.

When you program, you are writing the code for an application, Control Panel, Extension, or whatever you want to make. The archaic way to program is to actually enter your program in machine code, but this can lead to sleepless nights and rapid loss of hair, since the Mac (like most computers) only accepts instructions in numbers.

A much better approach, particularly when you are learning to program, is to program using a dedicated programming language, such as C or Pascal. In most languages you write in words and symbols, and in some languages you can even design much of your program graphically. However, the Macintosh can't run programs when they're in this form, which means you need compiler software to turn, or compile, your 'source' code into machine code, which is the form the Mac can understand.

Languages can be classified as low level or high level. If you program in a low level language, the code you write is reasonably close to what the computer requires, and one line of code usually compiles (or is assembled) directly into one line of machine code.

High level languages are more programmer friendly, however, since much of the computer's complexity is 'hidden' behind words and concepts. Because of this, one line of code in a high level language can turn into several lines of machine code. C, Pascal, and HyperTalk are examples of high level languages, while assembly language is low level.

```
void SystemSevenCheck (void)
{
    OSErr       status;
    SysEnvRec   envData;

    status = SysEnvirons (1, &envData);
    if ((status != noErr) || (envData.systemVersion < 0x700)) {
        ErrorMsg ("Sorry, System 7 or later needed.");
    }
}

void SystemSevenCheck(void){SysEnvRec envData;OSErr
    status=SysEnvirons(1,&envData);if ((!status)||(envData.
    systemVersion<0x700))ErrorMsg("Sorry, System 7 or later needed.");}
```

The top section of code does exactly the same thing as the bottom section. In C your code can be as tidy or as demented as you wish.

Take the first step...

So you're sitting at home, you've got a Mac, and you fancy writing a program. Where do you start, and which language do you use? Your choice will probably depend on your experience, your Mac, and (unfortunately) how much money you have.

If you haven't done any programming before, diving into something like C might be quite difficult. It may still be a struggle if you've only ever dabbled with BASIC on an old BBC Micro. An excellent place to start programming on the Mac is with *HyperCard* or *SuperCard*, both of which have been around for many years. Both of these programs hide much of the tedium of the Mac's workings, and you can write excellent software by

LANGUAGE

A programming language dictates the way you have to write the code before you compile it. In some languages you write in codes, while in other languages you almost write in plain English.

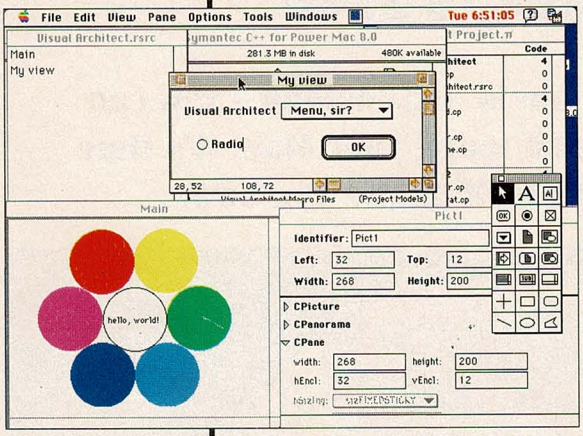
CONTACTS

If you want to get hold of any of the languages, CDs or books mentioned in this feature, turn to page 87 for a full list of contacts.

Continued on next page

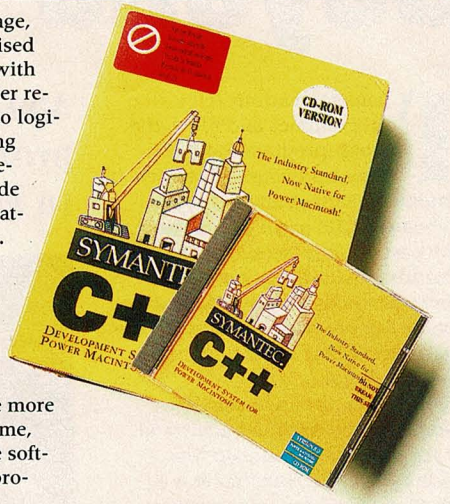
Raw code 7E00 204C D0C7 4A28 0000 6704 5247
60F2 204C D0C7 117C 0061 0000 204C

C++: WHAT'S IT ALL ABOUT?



Symantec C++ offers an intuitive all-in-one graphical approach to coding, and version 8 now enables you to write PowerMac software.

C++ is an object oriented language, which means that code is organised into objects which can interact with each other. This encourages easier re-use of code, splitting of code into logical sections, simplified bug fixing and more. There are many frameworks available – sections of code acting as a starting point for whatever program you wish to write. Both *Symantec C++* and *CodeWarrior* come with frameworks to write your own applications, and they take care of the tedious stuff while you get on writing the code which makes your program unique. There are more frameworks appearing all the time, and you can expect many future software developments to require programmers to write in C++.



OPENDOC

A new way of using software, due out soon. The idea is that working on a document will be centred on the task you need to perform, rather than the features one application offers. You can use lots of smaller programs that cooperate with each other instead – like using the plug-ins you can get for *Photoshop* without actually having the main program. This means you don't have to pay for features you'll never use, but can mix and match to your own needs.

ANSI

The American National Standards Institute is in charge, among other things, of setting the standards for new programming languages. ANSI C is the current C standard, and it's working on setting ANSI C++.

```
HyperCard   put "a" after mySentence

C           short   i = 0;
            do {
               if (mySentence[i] == 0) break;
               i++;
            } while (true);
            mySentence[i] = 'a';
            mySentence[i+1] = 0;

Assembly    MOVEQ     #$00,D7
            MOVEA.L   A4,A0
            ADDA.W    D7,A0
            TST.B     mySentence(A0)
            BEQ.S     *+$0006
            ADDQ.W    #$1,D7
            BRA.S     *-$000C
            MOVEA.L   A4,A0
            ADDA.W    D7,A0
            MOVE.B    #$61,mySentence(A0); 'a'
            MOVEA.L   A4,A0
            ADDA.W    D7,A0
            CLR.B     mySentence+$01(A0)

Raw code    7E00 204C D0C7 4A28 0000 6704 5247
            60F2 204C D0C7 117C 0061 0000 204C
            D0C7 4228 0001
```

All these snippets of code do the same thing, from the high level language HyperTalk (top) to the much much lower level machine code (bottom).

simply drawing buttons and writing your code almost in plain English.

HyperCard and *SuperCard* aren't just for simple projects – the successful adventure game *Myst* was written in *HyperCard*. Another advantage of these languages is that they have relatively low memory requirements, so a Mac with 4Mb of RAM is more than adequate. MACFORMAT has been running a *HyperCard* series for months now, so look up your back issues if you want to learn a few of the basics.

If, however, you think you're ready to start writing more heavy-duty programs, then you need to move up to something like C or Pascal. Pascal used to be the language of choice for most programming, but these days C is the most popular language, with C++ just overtaking Pascal into second place. One possible reason for C's success, apart from the flexibility you realise when you work with it, is that everyone can have their own 'style' of code.

Choosing between C and C++

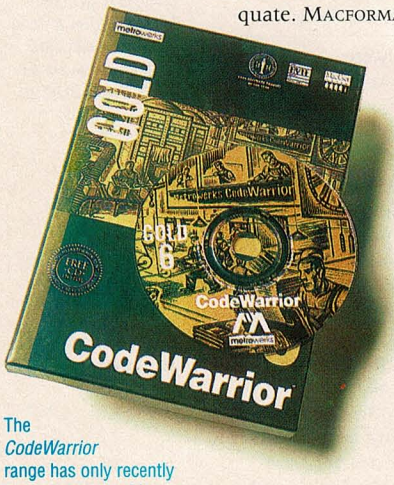
As you may have guessed, C and C++ are, on the surface, very similar. C++ is essentially an extension of C, and is known as an 'object oriented' language. If you're a home user and you want to go with the current language of choice, start learning C. However, if you're looking to the future, such as OpenDoc, or you're expecting to do programming work for other people, go with C++ (see the 'C++: what's it all about?' panel). Remember that you can always progress from C to C++, and that the biggest hurdle is the difference in thinking rather than in programming. As for Pascal, it's probably not worth pursuing it unless you've got a really good reason to. Apple recommend people write their software in C or C++ to ease the transition to PowerMac development and future cross-platform efforts.

If you want to start writing Mac software in C, C++, or any language of that level, then you should know that it's not cheap. You will definitely need to buy a programming package, as well as several books, if you're writing Mac software. A CD-ROM drive is extremely useful, since many good programming tools and references come on CD (in fact, one of the popular compilers is only on CD). If your budget is tight, check out the 'Shoestring budget approach' panel.

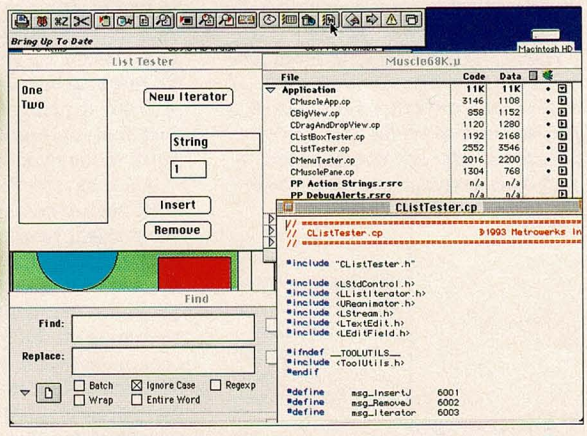
Programming packages

The one thing you can be sure of needing is a development (programming) package. This will include the compiler, software to organise your code, and more. If you're learning to program in C or C++, you have a choice of two good packages: *Symantec C++* or one of the Metrowerks *CodeWarrior* products. Apple also have a development environment called *MPW* (available from APDA), which is a development shell to which you add the compiler and development tools of your choice. *MPW* offers a wide range of development tools and languages, but its command-line interface is less intuitive than Symantec and Metrowerks' all-in-one graphical approach.

Symantec C++ is now on version 8, and has been around in one form or another since the first days of the Mac. The CD release of version 8 offers C and C++ compilers for writing PowerMac software, and includes version 7 for writing C and C++ for non-PowerMac software (68K Macs). One of the



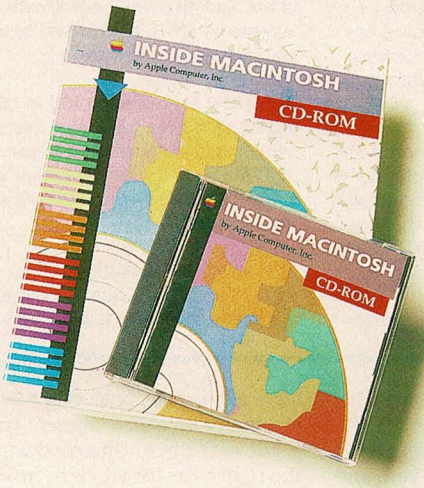
The *CodeWarrior* range has only recently appeared for the Mac, but is proving popular.

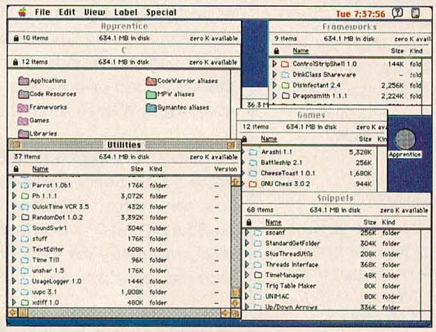


Although new versions of *CodeWarrior* appear with alarming regularity, all released versions are stable and Metrowerks offer a fair upgrade deal.

THE SHOESTRING BUDGET APPROACH

You haven't got much money, you're sitting at home with a Mac, and you're looking to write the next *Marathon*. The cheapest way to get a compiler is the academic version of *CodeWarrior* at £69, or *CodeWarrior Bronze*, which is also £69 *(Bronze* enables you to write for 68K Macs only, not PowerMacs). If you haven't got a CD-ROM drive, you can pick up a drive quite cheaply these days, if you don't mind getting a slow one – and speed isn't critical for programming anyway. Some of the *Inside Mac* books can be downloaded from Apple's Web site for free, or you can buy the *Inside Mac* CD. The *Apprentice* CD is essential, since it has so much sample code for all areas of programming. Add to that cost a book to learn C, and perhaps some books to learn about the Mac Toolbox, and you're away! The Internet newsgroups and Web pages (see the 'Internet hot spots' box) are great places to get information and advice from other programmers.





The *Apprentice* CD from Celestin contains source code for C, C++, Pascal, HyperTalk and other languages – for the relatively low price of £33. A fine source of source code.

Rather than investing in all the *Inside Macintosh* books, you could simply buy the *Inside Macintosh* CD.

more powerful tools included is *Visual Architect*, which enables you to graphically design your program's interface before churning out the necessary C++ code to implement it. The users' guide and compiler guide come in the form of printed manuals, while other parts of the documentation come on the CD. You'll need at least 16Mb of RAM, or 8Mb of RAM for non-PowerMac development, and 20 to 70 Mb of hard disk space. If you have an 8Mb Mac, bear in mind that virtual memory (like *RAMDoubler)*, while usually very useful, slows down development software and is not really feasible.

Symantec also offer version 7 separately, enabling you to program in C and C++ for 68K Macs. Unlike version 8, this comes on floppy disks and the documentation is all in paper form. However, even if you're only writing for 68K Macs, you're better off with version 8, unless you don't have a CD-ROM drive or you don't like reading some documentation on the screen, because version 8 is cheaper, includes version 7, and is the way of the future.

Metrowerks offer two versions of their product, *CodeWarrior Bronze* and *CodeWarrior Gold*. Both of these enable you to develop in C, C++, and Object Pascal for 68K Macs, while with *CodeWarrior Gold* you can also develop in

You'll need a programming package and several books, and a CD-ROM drive is useful

these languages for PowerMacs. The *CodeWarrior* range has only recently become available for Macs, but these development tools are popular because they compile quickly and provide excellent technical support. They only come on CD and the documentation is almost all on CD, although you can now buy a hard copy (paper version) of some parts for a minimal charge. You'll need at least 8Mb of RAM, an LC or better (or any PowerMac), and System 7.1 or later.

An academic version of *CodeWarrior* is also available, which is similar to *Gold* but costs the same as *Bronze*. The products are not yet finished, and a new development version appears about twice a year. However, Metrowerks say that all released versions are stable, and buying the current version entitles you to the next two releases free of charge.

CodeWarrior and *Symantec C++ 8.0* both come with lots of extra utilities, documentation, and other tools that are useful for developers. As for developing for the latest technology, both development packages come with tools to develop software for OpenDoc. The current *CodeWarrior* package also has tools for developing for Magic Cap and Win32 (which are both development environments – they're basically

APDA

Apple Programmers and Developers Association. Despite the name, anyone can order products from their Developer Tools Catalogue, which has program development software and packages from Apple and other companies. Phone or e-mail them to get hold of the latest catalogue.

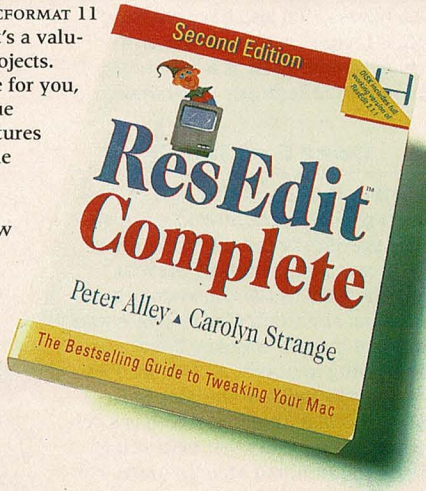
COMPILER

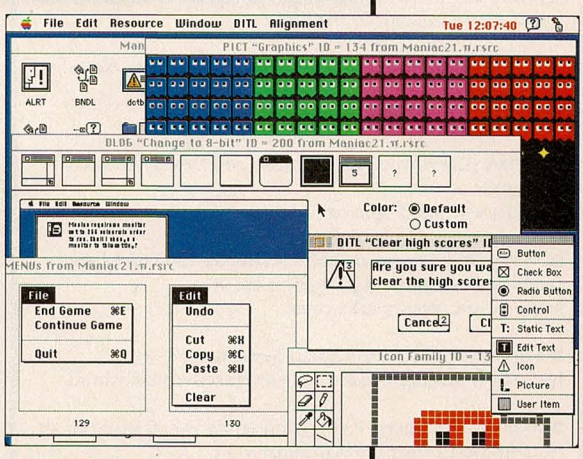
Software that turns the source code of a language, such as C, into code that the Mac can understand. Each compiler only compiles one language.

Continued on next page

RESEDIT'S REVENGE

If you had a go with *ResEdit* in MACFORMAT 11 you'll be rewarded here, because it's a valuable tool for most programming projects. While the compilers make the code for you, you still have to design the dialogue boxes and menus, organise the pictures and sounds, and put together all the resources of an application. Most development software comes with *ResEdit*, but you're expected to know how to use it. As well as the book on *ResEdit* that came with MACFORMAT 11, there are a couple of others available to help you get going. One good start is *ResEdit Complete*, which takes you through all the parts of *ResEdit* you're likely to use. There is also an on-line *ResEdit* reference section on both the *CodeWarrior* and *Symantec C++ 8.0* CDs.





You need to know how to use *ResEdit* to put all the finishing touches to your application.

Raw code 7E00 204C D0C7 4828 0000 6704 5247
60F2 204C D0C7 117C 0061 0000 204C

ASSEMBLY LANGUAGE
Assembly is a low level language – that is, close to the language that your Mac itself uses. This means that one line of assembly compiles into one line of machine code.

MANAGER
A collection of routines which together help implement a part of the Mac interface, such as Sound Manager and Help Manager.

OFF THE BEATEN TRACK: OTHER LANGUAGES

If you're just starting to program on the Mac, having previously used another computer, you may be looking for a Mac version of your favourite language. What's available?

■ **BASIC** is available as FutureBASIC from STAZ Software, although they've just announced that it will be updated to STAZBASIC this autumn. In addition, Mainstay do VIP-BASIC, which you can get through APDA.

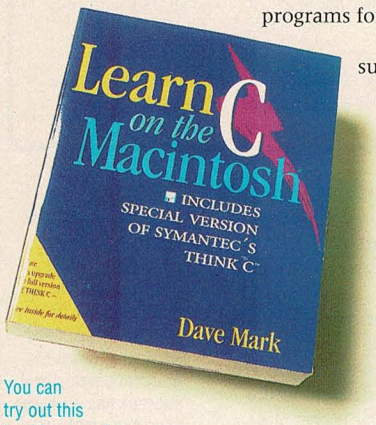
■ **SmallTalk** has a few Mac incarnations, and one version is Smalltalk-Agents by QKS, distributed in the UK by Full Moon Software.

■ **FORTRAN** can be found in LS FORTRAN from Language Systems, which is also distributed in the UK by Full Moon Software. Note that it also requires *MPW* – Apple's development environment.

■ **LISP/CLOS** is available from Apple in the form of Macintosh Common Lisp. You can order it from APDA.

■ **Assembly language**, if you really are a complete nutter and wish to have a go, is available in a shareware program called *FANTASM*. Also, note that most compilers these days enable you to write parts of your code in assembly language.

■ **Newton** programming can be done on the Mac – all you need is a copy of Apple's Newton Toolkit or NS BASIC Corporation's NS BASIC for Newton. Both of these products are available through APDA.



You can try out this book's examples on your Mac using the version of *THINK C* that comes with it, but it is on the lightweight side.

programs for writing programs).

If you still aren't sure which package would suit you, and you have access to the Internet, there are various sources that can give you more information and insight into other people's experiences with programming – see the boxout 'Internet hot spots'.

Learning a language

Once you've picked a development package you'll also need to learn your language! There are many ways to learn a language, but using a book together with a development language is one of the best. One good way to get the right book for you is to head down to your local large-ish bookshop and see which one you find the easiest to follow and understand. Often a combination of two or more books may be useful. Remember that C is more or less the same on all computers, it's just that different computers have different operating systems, so you only change your *approach* when you start writing software specifically for the Mac.

If you want to learn C, you could try *Learn C on the Macintosh* by Dave Mark. One advantage it has over other C books is that it comes with a 'light' version of *THINK C*, Symantec's C compiler (now discontinued, but available with *Symantec C++)*, which enables you to try out the book's examples on your Mac. However, the book doesn't cover writing Mac programs with menus and windows.

There isn't yet an ANSI standard for C++, so different books may have their own approach to certain parts of C++. But the basics are essentially decided, and one good place to start is with *The C++ Primer* by Stanley Lippman. It provides a good introduction to C++, and doesn't assume that you already know C. However, it does assume a basic understanding of programming in general, whereas *Learn C on the Macintosh* really does start from scratch. The *CodeWarrior* CDs also have a section called *Learn C and C++ in five days*, which is quite good, if a little heavy going for the beginner programmer.

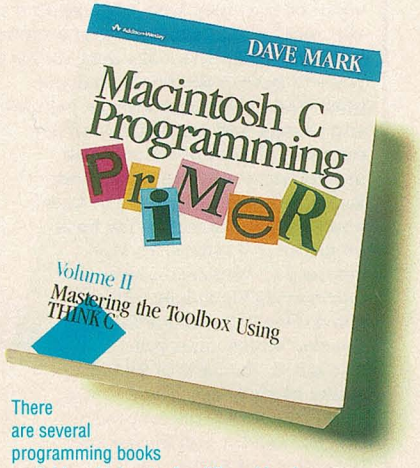
Doing it on the Mac

Whether you're working in C or C++ you'll need to learn how to write software specifically for the Mac. One of the great selling points of the Mac over the years is the consistency in its software: almost all Mac software uses standard menus, dialogue boxes, similar printing methods, and so on. This is thanks to a part of the Mac System called the Mac Toolbox, which is a collection of managers that help you to create the standard Mac interface. For instance, the Window Manager is provided by the System Software to help you create and manage windows in your applications.

This means that if you're writing your Mac program and want to create a window, you don't need to draw the title bar, close box and the rest of the elements yourself. You just use one line of code, telling the Window Manager to create your window. A similar approach is used for dialogues and menus, right up to new technologies like QuickTime movies and speech.

If you want to start learning about the Mac Toolbox, two good books are *Macintosh C Programming Primer*, volumes I and II. These take you through all the basics of creating Mac-like programs in C, and bring together C, your programming software, and *ResEdit* to make Mac software. The first volume covers standard interface parts like windows, menus and dialogues, and the second volume moves on to discussing memory, QuickDraw, and the basics of object-oriented programming. There are frameworks for C++ which take care of dealing with many parts of the Mac interface, so you may wish to browse through these books before choosing which to buy.

Whether you're writing in C or C++, you'll definitely need some of the *Inside Macintosh* books. These are written by Apple, and the series covers every aspect of the Mac Toolbox. All the chapters in the books have an overview of the topic covered, what



There are several programming books available, which cater for different levels of previous programming experience.

INTERNET HOT SPOTS

The Internet is one of the best sources of information any developer can have. Not only are most companies now on the Net, but there are thousands of users who have programming experience and may be able to help you!

Check out the comp.sys.mac.programmer newsgroups, or try some of these links. The easy way to find these links is via FutureNet – see page 16 for more details.

■ Apple developer information, including on-line copies of some *Inside Mac* books, APDA information, developer services and links to relevant Web pages can be found at:
http://www.info.apple.com/dev/

■ 'Geeks' Web page (which includes many programming links) is at:
http://www.info.apple.com/dev/geeks.html

■ APDA (the Apple Programmers and Developers Association) is at:
http://www.info.apple.com/dev/apda.html

■ Metrowerks (who are responsible for the *CodeWarrior* range of development packages) are at:
http://www.metrowerks.com/

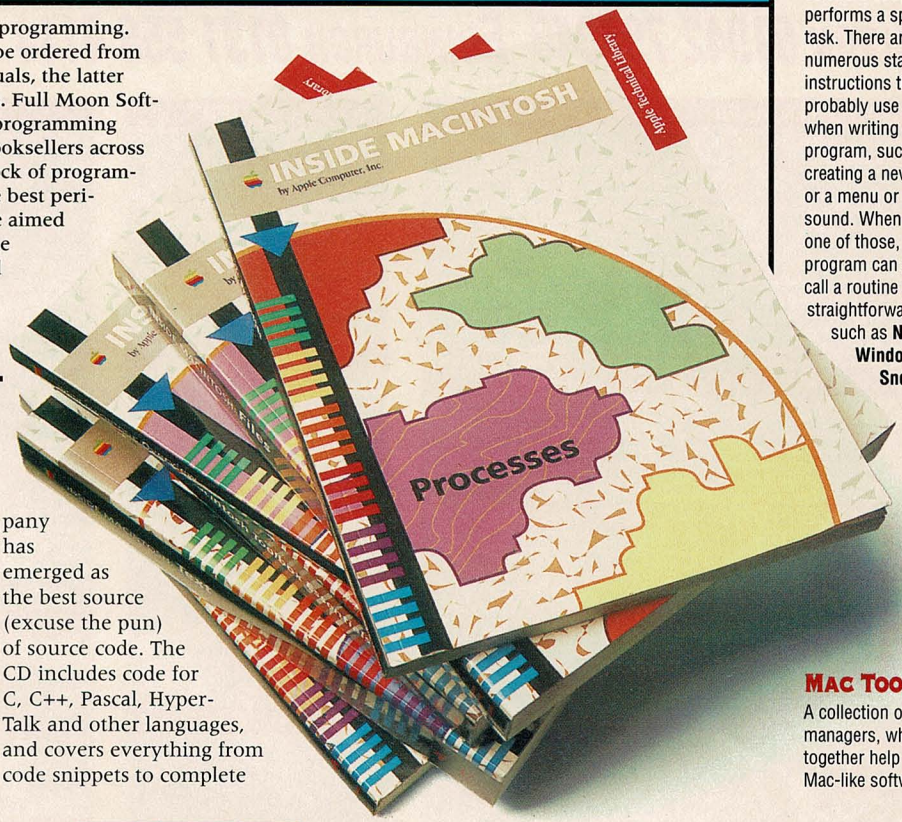
■ For more information about *Symantec C++*, try:
http://www.symantec.com/lit/dev/macdv/macdv.html

■ Mac programmers' FAQs (frequently asked questions):
ftp://ftp.best.com/pub/ckt/csmpFAQ.txt
http://www.best.com/~ckt/csmpFAQ.html

Raw code 7E00 204C D0C7 4828 0000 6704 5247
60F2 204C D0C7 [illegible] 0061 0000 204C

BOOKS, MAGAZINES...

Let's face it, there is a lot of literature on programming. The books mentioned in this article can be ordered from Addison Wesley or from Computer Manuals, the latter being a good source for many Mac books. Full Moon Software also stock a large selection of Mac programming books, and there are always the major booksellers across the country, who usually keep a large stock of programming books for all computers. One of the best periodicals is *MacTech*, an American magazine aimed at all programmers and developers. Apple offer *Develop*, a quarterly technical journal filled with source code and articles, with the latest *Develop Bookmark* CD. *Develop* is available through APDA.



you can accomplish with the routines (Toolbox commands) available, and a detailed description of all the routines together with various examples of use. There are dozens of *Inside Macintosh* books available, although good starting points are *Inside Macintosh: Overview, Inside Macintosh: Toolbox Essentials, Inside Macintosh: Files,* and *Inside Macintosh: Memory.*

Of these, *Inside Macintosh: Overview* is especially useful as it takes you through all areas of the Mac Toolbox and gives you a general feel for Mac programming. From there you can buy more books, depending on which areas of the Mac you're most likely to write software for.

If you don't mind reading from the screen, Apple also produce an *Inside Macintosh* CD which contains all the books in an electronic format. Using Apple's *DocViewer*, all the books appear as pages on your screen, and you can go to parts of the book using the table of contents provided. There are several indices and other references, and you can print out pages. Because the documentation is organised like pages of a book, it can be difficult to navigate, but the small CD cost compared to the price of the set of books makes it a definite bargain.

Another good book purchase, no matter what language you're using, is *Macintosh Human Interface Guidelines* by Apple. The Mac Toolbox keeps some parts of the interface standard, but it's still easy to go off the rails unless you know how every single part of your program should operate. The guidelines keep your program 'Mac-like' and encourage an intuitive program design. *Always* follow the guidelines!

Following examples

Another excellent way you could choose to learn how to write Mac software is to peruse some example source code. Many programmers make some of their code available for the sole purpose of showing other programmers what they've done and how they did it. The Info-Mac archives on the Internet have always been a good place to get source code, but recently the *Apprentice* CD from Celestin Company has emerged as the best source (excuse the pun) of source code. The CD includes code for C, C++, Pascal, HyperTalk and other languages, and covers everything from code snippets to complete applications to frameworks. The relatively low price of £33 makes this CD invaluable for all programmers. The *Apprentice* CD and the *Inside Mac* CD are available in the UK from Full Moon Software.

de 7E00 204C D0C7 4828 0000
60F2 204C D0C7 [illegible] 0061

An excellent way to learn how to write Mac software is to peruse example source code

Having seen all the books and products available, you may be wondering how long it will take to learn to program. If you're trying to learn C or C++, and you've got a decent selection of books and example code, it shouldn't take more than a few weeks to get going with simple programs. Of course, this depends on how much time you put in. You've reached a turning point once you pretty much understand C and can use a couple of Toolbox routines. From there you can then access any of the Mac's power and features simply by reading the right *Inside Macintosh* books. Creative and intuitive thinking is important in creating popular software these days, rather than advanced programming skills (although they do help).

Don't be overwhelmed by the wealth of information. Figure out what you want, how much you can afford, and give it a try. There are many ways to get into Mac programming, and who knows, next time the star of the code could be you. **MF**

ROUTINE
A section of System software code that performs a specific task. There are numerous standard instructions that you'd probably use a lot when writing a program, such as creating a new window or a menu or playing a sound. When you need one of those, your program can simply call a routine using a straightforward code such as **NewWindow** or **SndPlay**.

MAC TOOLBOX
A collection of managers, which together help to create Mac-like software.

HYPERTALK
The programming language of *HyperCard*, also known as the scripting language.

CONTACTS

Programming software:

■ *Symantec C++ 8.0* for PowerMac (includes version 7.0 for 68K Macs), £309.
Symantec C++ 7.0 for 68K Macs, £339.
Contact Symantec on 01628 592320.
■ *CodeWarrior Gold*, £275.
CodeWarrior Bronze, £69.
CodeWarrior Academic, £69.
Contact Full Moon Software Distribution on 01628 660242 or e-mail: sales@fullmoon.com
■ *HyperCard 2.3*, £95.
Contact Apple on 0800 127753.
■ *SuperCard 2.5*, £396.
Contact Gomark on 0171 731 7930.
■ *FutureBASIC 1.0.2*, £215.
Contact MacLine on 0181 401 1111.

Books and CDs:

■ To get hold of any of the books mentioned in this article, contact Addison-Wesley on 01734 794000 or Computer Manuals on 0121 706 6000.
■ *Inside Macintosh* CD, £88.82 and *Apprentice* CD, £32.90.
Contact Full Moon Software on 01628 660242 or e-mail: sales@fullmoon.com

General information:

■ Contact APDA for their Developer Tools Catalogue and prices on 001 716 871 6555, fax 001 716 871 6511 or e-mail: apda@applelink.apple.com
■ Contact Apple Developer Information on 0800 505094.
■ Contact *MacTech* magazine on 001 310 575 4343, fax 001 310 575 0925 or e-mail: custservice@xplain.com

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Power Mac 9500/132 16/2000 CD	3906	Power Mac 9500/132 16/2000 CD + ATI Video	4375
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Performa 630 4/500 CD Plus	4	500	14" Trinitron display & keyboard	894
Performa 630 4/500	4	500	Multiscan 15" display & keyboard	804
Performa 630 8/500 CD Plus II	8	500	Multiscan 15" display & keyboard	1017
Performa 630 8/500 CD	8	500	Multiscan 15" display & keyboard + Global Village Voucher	886
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Performa 6200 8/800 CD Plus II	8	800	Multiscan 15" display & keyboard	1139
Performa 6200 8/800 CD M Plus II	8	800	Multiscan 15" display & keyboard	1289
Performa 6200 8/500 CD DS Plus	8	500	14" Trinitron display, Design Speakers & keyboard	968
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Powerbook 5300C	16	750	100MHz 603e	10.4 AM	2851
Powerbook 5300CS	16	750	100MHz 603e	10.4 AM	2232
Powerbook 5300CE	32	1100	117MHz 603e	10.4 AM	4355
Powerbook 150	4	250	33MHz 030	9.5" 4 GS PM	699
Powerbook 150 GV Powerport Gold	4	250	33MHz 030	9.5" 4 GS PM	724
Powerbook 540C EM + 8Mb	8	320	66/33Mhz LC040	9.5" 256 or 32k AM	2656
Powerbook 190	4	500	33MHz 040	9.5" GS PM	call
Powerbook 190	8	500	33MHz 040	9.5" GS PM	call
Powerbook 190CS	4	500	66/33Mhz LC040	10.4 PM	call
Powerbook 190CS	8	500	66/33Mhz LC040	10.4 PM	call
Powerbook 2300C	8	750	100MHz 603e	9.5 AM	call
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Powerbook Duo 280C EM	12	500	66/33Mhz LC040	8.4" 256 or 32k AM	2315

Key: EM = Express Modem, GS = Greyscale, GV = Global Village, PM = Passive Matrix, AM = Active Matrix

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72 Pin Simm	4Mb	8Mb	16Mb	32Mb
PMac, Quadra, LCIII/475, Perf 475/630/5200/620090	185	369	625	
Powerbook 520, 520c, 540, 540c	130	265	449	
Powerbook 150,	149	249		
Powerbook 5300		279		

	1Mb	2Mb	4Mb	6Mb	8Mb	16Mb
Personal Laserwriter 320		82		229		
Laserwriter Select 300/310	65		165			
Laserwriter 16/600			145		260	520
Laserwriter Pro 630			150			

Dimm Memory	4Mb	8Mb	16Mb	32Mb	64Mb
8500, 9500, 7500, 7200	140	245	445	859	1787

Video RAM	256k	512k	1Mb	2Mb
	15	25	65	120

Secondary Cache Memory	256k	512k	1Mb
PowerMac 6100/7100/8100	105	199	385
PowerMac 7200/7500/8500/9500	95	160	410

ACCESSORIES

Design Keyboard	74	Extended Keyboard	128
Adjustable Keyboard	149	Desktop II Mouse	35
PlainTalk Microphone	20	Design Speakers II	46
MIDI Interface	53	Security Kit	34
Microspeed Mouse	35	Microspeed Keyboard	65
Performa Video In card			85
Performa Video In, TV Tuner card			215
Performa Presentation kit (Video Out)			199
Power Mac Upgrade Card			545
Power Mac 6100 DOS Compatibilty Card			385

DVC Equalzers

66-84 Mhz	75	100-120 Mhz	75

HANDHELDS

HEWLETT PACKARD

HP200LX 1Mb	380	HP200LX 2Mb	429
1000CX	255	Connectivity Pack	75
PC Cable	17	Mac Cable	17
OSM	34		

PSION SERIES 3

Series 3a 256k	175	Series 3a 512k	199
Series 3a 1Mb	249	Series 3a 2Mb	299
Series 3S 256k	129	PC Comms Link	49
Mac Comms Link	55	Mains Adaptor	12
Parallel Cable	23	Leather Wallet	19
Fax Modem	159	128k Flash SSD	27
128k RAM SSD	37	256k Flash SSD	40
512k RAM SSD	89	512k Flash SSD	65
1Mb RAM SSD	189	1Mb Flash SSD	89
2Mb Flash SSD	139	4Mb Flash SSD	255
Psion Money	40	3Base	24
Agenda Link	49	Data Deluxe	49
Finance Pack 3a	50	Games 3a	34
Spellcheck/Thesaurus	29	WinLink	23

APPLE HANDHELDS

Message Pad 120	395	Connectivity Kit Mac	55
Fax Modem card	80	Print Pack	45
Mains Adaptor	18	1Mb Storage card	60
2Mb Storage card	110	4Mb Storage card	200
NICAD Battery Pack	16	Leather Carry case	40
Recharger & Mains	54		

SOFTWARE

GoFigure	25	PocketCall	65
ExpensePlus	38	Notion List Manager	30
Jig Saw	16	FilePad	75
TapWorks	54	Newton Utilities	23

PCMCIA SOFTWARE

Fodors 94 Travel Mgr	23	Berlitz Interpreter	65
Time Out Guide	38	Newton Enh Pack	90

CD-ROM DRIVES

APPLE

CD300e+	172	CD600i	Call
CD600e	280		

D2

2.4x External	165	4X External	230

NEC

3xp+ External	245	6xe External SCSI	369
3xp/4e Mac software	31	Dual Speed Ext Kit	115

TOSHIBA

XM5201S 3.4x Ext	195	XM3601S 4.4x Ext	299
XM3501S 4x Ext	325		

DIGITISERS

CALCOMP

A5 DrawingSlate	205	A4 DrawingSlate	269
A3 DrawingSlate	385		

WACOM

ArtPad	129	ArtPad+Dabbler	155
ArtPad+Painter 3	359	A5 Tablet+Painter 3	485
A5 Tablet	255	A4 Tablet	355
A3 Tablet	559		

HARD DISKS

Bracketed figure is nominal capacity in Mb.

CONNER

CFA540S (540)	199	CFA1060S (1.06Gb)	254
CFP2105 (2.1Gb)	425	CFP2107 (2.1Gb)	510
CFP4207 (4.2Gb)	828		

D2

Extract 500Mb	225	Extract 1Gb	327
Extract 2Gb	792	Extract Dock	155

MICROPOLIS

2217 (1.7Gb)	585	4221AV (2.1Gb)	696
3243AV (4Gb)	1065	1991AV (9.1Gb)	1850

QUANTUM

TR420S (420)	106	TR850S (830)	170
FB540S (540)	119	FB1080S (1.08Gb)	201
XP32150 (2.1Gb)	545	GP4301S (4.2Gb)	670

SEAGATE

ST31230N (1Gb)	332	ST32550N (2.1Gb)	701
ST15230N (4Gb)	863	ST410800N (9Gb)	1776

STORAGE OPTIONS

500A (500) Ext kit	261	1000P (1Gb) Ext kit	489

EXTERNAL CASES

3.5" Single Drive	60	5.25" Half Height	70
5.25" Full Height	120	5.25" Full Height x2	190

All with internal PSU

External Cased Hard Disks

Add together the price of the disk and case. Formatting, fitting and ID setting is free of charge.

LASERS

APPLE

LW 300	409	LW 320	595
LW Select 360	945	LW Pro 630	1180
LW 4/600 PS	559	LW 16/600PS	1505
LW 16/600PS & fax	1540	LW Colour12/600PS	4479

DIGITAL

DECLaser Pro 5100	1089	DECLaser Pro 660	1170
DECLaser 3500	1495	DECLaser Pro 1200	2290

HEWLETT PACKARD

LaserJet 5MP	710	LaserJet 4M+	1290
LaserJet 4MV	1965	LaserJet 4SiMX	2925
LaserJet Colour	4179		

HEWLETT PACKARD SUPPORT PACKS

LaserJet 5MP	135	LaserJet 4M+	170
LaserJet 4MV	220	LaserJet 4SiMX	505
LaserJet Colour	1280		

ORIGINAL HP LASER MEMORY UPGRADES

Printer	1Mb	2Mb	4Mb	8Mb
4M/4SiMX/1200/PJ	69	119	189	329
5MP/4M+/4MV/Colour	69	119	167	329

GCC

Elite XL 616 A3	2499	Elite 600 A4	925
Elite XL 608 A3	1845	Elite XL 808 A3	2460
Elite XL 1208 A3	3395		

QMS

860 Plus	3799	1660 12Mb	2199
1660 24Mb	3899	1725	3399
Magicolour LX 12Mb	4270	Magicolour 24Mb	5000
Colour Suit 210	2799	Colour Suit 230	5550

PRINTERS

APPLE

StyleWriter 1200	188	StyleWriter 2200	256
StyleWriter 2400	314		

EPSON

Stylus Colour IIs	252	Stylus Colour II	293
Stylus Colour	285	Stylus Pro A4	639
Stylus XL Pro A3	1399		

FARGO

Primera Pro	1299	Picturra 310	3420

HEWLETT PACKARD

SPECIAL DeskWriter 310	**£99**		
DeskWriter 340	call	DeskWriter 600	206
DW 320/540 Col Kit	28	DeskWriter 660C	272
Deskjet 850C	325	DeskJet 1600CM	1219

TEKTRONIX

Phaser 140	849	Phaser 140e	1049
Phaser 340	3995	Phaser 340+	4455

MODEMS

APPROVED! Connection to Network is only allowed when specified in the instructions for use subject to the conditions set out in those instructions.

APPLE

Geoport adaptor	96	Express Modem	285
520 Express Modem	315	Duo Express Modem	220
Performa Personal Comms slot Modem 14K4			169

ANDEST

RR Rocket Gold	135	RR Rocket Terbo Plat	135

GLOBAL VILLAGE

Teleport Bronze II	87	Powerport Bronze	89
Teleport Gold II	119	Powerport Gold	215
Teleport Mercury	250	Powerport Mercury	250
Teleport Platinum	195	Powerport Mercury	250
		Powerport Platinum	299

HAYES

Accura 144 + Fax	149	Accura 288 + Fax	180

MOTOROLA

3400 V34 28k8	154		

MULTITECH

Internet in a box	235		

SUPRA

FaxModem 14.4 LC	89	FaxModem 28.8 v.34	170
FaxModem 144 P/B	135	FaxModem 288 P/B	135

US ROBOTICS

Sportster 14.4 + Fax	104	Sportster 28.8 + Fax	156

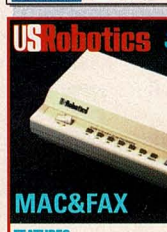
ZOOM

Zoom 144	93	Zoom 288	159

Supra Fax Modem™ 288

- 28,800 bps data/14,400 bps fax
- Flash ROM allows for convenient firmware upgrades
- Includes Caller ID
- Silent Answer™ fax & voice line sharing
- Five year limited warranty

£170



FEATURES

- Data Speeds; V.34 at 28,800bps, V.FC, V.32bis, V.32, V.23, V22bis, V.22, V.21, Fax:V.17 at 14,400bps, V.29, V.27ter
- V.42/V.42bis MNP 2-5 Error Correction/Data Compression
- Fax Class 1 & 2.0, Group 3
- Asynchronous operation
- Mac serial cable and MacComCenter software supplied
- BABT Approved

£156

SCANNERS

AGFA

StudioScan IIsi full	599	Arcus II & Tranny	2219
StudioScan IIsi Lite	529	SScan Tranny unit	269

APPLE

OneScanner	360	Colour OneScanner	555
QuickTake 150	360		

EPSON

GTx 8500	473	GTi 8500	645
GTx 9000	571	GTi 9000	740
Lapcat Scanner	281	Transparency Unit	365
Document Feeder	319		

GTX = Photoshop Lite + Omnipage Direct
GTi = Photoshop Full + Omnipage Direct

HEWLETT PACKARD

Scanjet 4p	call	Scanjet 4c	call

MICROTEK

Scanmaker II	296	Scanmaker IIG	335
Scanmaker IIHR	799	Scanmaker II SP	420
Scanmaker III	1815	Transparency Unit	275
Photoshop LE	30	Photoshop Full	130

Photoshop can only be bought with scanners

NIKON

CoolScan External	990	ScanTouch	729
LS-1000	1325	LS04500AF	5890

UMAX

Vista T630	299	Vista S8LE	540
Vista S8 Pro	955	UC1260FE	765
UC1260LE	620	UC1260 Pro	1035
Powerlook Pro	1995	Page Office	280

12 month replacement warranty on all Umax scanners
Pro models inc. Trannie adaptor

VISIONEER

Paper Port	282		

Serial port connection

UMAX SCANNERS

TRANSPARENCY ADAPTER & DOCUMENT FEEDER AVAILABLE FOR ALL SCANNERS

Vista-T630

- 24bit/16.7m colour scanning
- 300x600dpi optical resolution
- 4800x4800 max res. thru Ultra View technology
- 3 Pass, RGB filter
- VistaScan Software Driver

£299

Vista-S8LE

- 24bit/16.7m colour scanning
- 400x800dpi optical resolution
- 6400x6400 max res. thru Ultra View technology
- Single-pass, colour CCD
- VistaScan Software Driver

£540

Powerlook Pro

- 30 bit colour scanning
- 600x1200dpi optical resolution
- 2Mb input/output buffer
- Transparency adaptor
- Single-pass, colour CCD
- VistaScan Software Driver
- Full Photoshop 3

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GCC Elite XL 616

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- A4/A3 Edge to Edge Printing
- Automatic Emulation Sensing
- 8Mb Memory upgradable to 64Mb
- Ozone friendly single component consumables

£2499

GCC Elite XL 808

- 800dpi, A4/A3 Edge to Edge Printing
- Accugray Enhancement
- 12Mb Memory upgradable to 64Mb
- SCSI External Drive
- Automatic Emulation Sensing
- Ozone friendly single component consumables

£2460

GCC Elite XL 1208

- 1200dpi, A4/A3 Edge to Edge Printing, A3 crops
- 250 sheet paper tray, Accugray Enhancement
- 12Mb Memory upgradable to 64Mb
- Automatic Emulation Sensing
- Ozone friendly single component consumables

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MONITORS

APPLE

Performa Plus 14"	199	Trinitron 14"	234
MultiScan 14"	call	MultiScan 15"	274
MultiScan 17"	630	Applevision 1710AV	665
MultiScan 20"	1299		

FORMAC PRONITRON

80.17 17"	499	80.20 20"	1210
80.20HP 20"	1250		

IIYAMA

MF 8221E 21"	1035	MF 9021E 21"	1099

IIYAMA

MF8115 15"	259	MF8617E 17"	490
MF8221 21"	1247	MF9121 21"	1209
MF9017E 17"	535	MF8621 21"	1645

NEC

Multisync XV14	212	Multisync XV15	273
Multisync XE15	388	Multisync XV17	549
Multisync XE17	680	Multisync XP17	895
Multisync XE21	1139	Multisync XP21	1745

NOKIA VALUEGRAPH

44BS090P LR NI 14"	225	449E090P 15"	305
447V090 17"	475	447B090 17"	519

NOKIA MULTIGRAPH

449M092 15"	355	447M090 17"	629
447X090 17"	670	447M092 17"	685
447X092 17"	710	445M090 21"	1299
445M092 21"	1415	445X092 21"	1599

PANASONIC PRO SERIES

TX-T1537 15"	315	TX-D1732 17"	470
TX-D1751 17"	639	TX-D2032 20"	1119
TX-D2123 21"	1349	TX-D2103 21"	1408

PHILIPS

15B 15"	242	17C 17"	415
17T Trinitron 17"	445	17A 17"	685
20C 20"	775	20T Trinitron 20"	1065
21B 21"	1199		

RADIUS

PrecisionColor 17	820	PrecisionCol 20V	1135
PrecisionColour Pivot	610	Pressview 21T	1530
Pressview 17SR	1565	PrecView 17	615
Intellecolour 20E	1249		

SONY

CPD-15SF1 15"	297	CPD-17SF1 17"	569
GDM-17SEIT 17"	785	GDM-20SEVT 20"	1215
GDM-20SEIT 20"	1360		

TAXAN ERGOVISION

580 15"	284	880 17"	515
885 17"	589	1080 20"	869
1095 20"	1299	2100 21"	1499

VIEWSONIC

VS15ES 15"	245	VS15G 15"	305
VS17G 17"	515	VS17-2 17"	650
VS20G 20"	989	VS21PS 21"	1315

Adapters available if required. Please call for details.

DAT STREAMERS

D2

2Gb Ext	740	4/8Gb Ext	802
4/16Gb Ext HP	956	4/16Gb Ext Sony	925

inc. cables, drivers & Retrospect Remote

WANGDAT

3100 Ext 2Gb	595	3200 Ext 4-8Gb	700
3400DX Ext 8-16Gb	795		

SYQUEST DRIVES

88Mb	230	105Mb	265
200Mb	345	270Mb	349
EZ135 135Mb	149		

All inc cable, software & 1 cartridge

REMOVABLE DRIVES

D2

128Mb MO	345	230Mb MO	450
1.3Gb MO	1419		

IOMEGA

Zip 100Mb Ext	129	Jaz 1gb Ext	call

All inc cable, software & 1 cartridge

CD RECORDING

Philips CDD522 2x	1299	JVC XR-2001 2x	1499
Yamaha CDR100e 4x	2098	Ricoh RS1060 2x	1399

All inc. cables, drivers, software & 1 disc

CARRY CASES

TARGUS

Universal Notebook	44	Business Traveller	149
Notepac black	26	Notepac green	26
Premier Leather case	107	Fabric Premier	75

Specifically designed for your notebook computer

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ACCELERATORS

DAYSTAR

Turbo 601 66MHz	659	Turbo 601 100MHz	956
Turbo 040 40MHz	586	PowerPro 601 50MHz	375
Q610 Adaptor	85		
PowerPro 601 100MHz			920
PowerPro 100MHz adaptor for Q610			610

For full details please call

NETWORK CARDS

APPLE

Ethernet NB	155	Ethernet LC	95
Ethernet NB TP	80	Ethernet LC TP	68
BNC/TP Transceiver	34	AUI Transceiver	54
CommsSlot UTP/BNC	55	CommsSlot AUI	55

DAYNA

DAYNAPORT ETHERNET INTERFACES 10BT-2 THIN & 3 MEDIA

E/Z Ext. 10BT Ethernet interface, any mac	209
CS Ethernet interface, Parloma 630	69
E/SE-3 Ethernet interface, Mac SE	107
E/II-3 Three media Ethernet int., all NuBus Macs	107
E/LC Ethernet interface, Mac LC family	75
E/LC-M Ethernet int., Mac LCIII, 10BT & Thin	107
si/30-3 Ethernet interface, Mac IIsi	107
si/30 Ethernet interface, Mac SE/30 & IIsi	99

DAYNAPORT ETHERNET INTERFACES 10BT

Pocket SCSI/Link-T, Powerbooks & Macs	209
CS-T, for comms slot Macs, Perf 630	65

FARALLON

EtherMac LC-TN BNC	70	EtherMac LC-10T UTP	60
EtherMac II-TN BNC	86	EtherMac II-10T UTP	79
EtherThin Printer/Powerbook/Netwon Adaptors			240

PLANET ISDN

Planet II Lite	650	Planet II Full	820

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VIDEO BOARDS

DIAMOND

3240XL	225	3400XL	325

RADIUS

PrecisCol Pro 24XP	385	PrecisCol Pro24XK	520
PrecisCol 8XJ	385	PrecisCol Pro24X	730
VidVision Studio v2	3510	Spigot Power AV	680
Thunder 24GT	1135		

RADIUS PCI

PrecisCol 8/1600	385	Thunder 30/1600	975
Thunder 30/1152	650	ThunderCol 30/16001	610
ThunderCol 30/11521	299		

RASTEROPS

Paintboard Prism	405	Paintboard Prism GT	725

Free Painter with Prism GT

PLOTTERS

HEWLETT PACKARD

Designjet 230 A1	1390	D'jet 230 A0	1900
Designjet 250c A1	1696	Designjet 250c A0	2328
Designjet 600 A1	2716	D'jet 600 A0	3246
Designjet 650C A1	3750	D'jet 650C A0	4887
HP Designjet OSM	300		

ROLAND

Sketchmate A4	409	Sketchmate A3	545
DXY-1150	585	DXY-1250	710
DXY-1350	945	GRX-350	2379

SUMMAGRAPHICS

Mono A1	1865	Colour A1	2345
Mono A0	2345	Colour A0	2680

CONSUMABLES

DISCS	10	100	250
Unbranded 1.44Mb DSHD	50p	40p	35p
Branded 1.44Mb DSHD	60p	40p	35p
CD RECORDABLE	**1**	**10**	**100**
650Mb/74min	8	7	6
CABLES	**2m**	**3m**	**5m 10m**
Macintosh Printer	5	-	8 15
			1m 2m
SCSI C50M-C50M			8 15
SCSI C50M-HC50 Micro D			19 29
SCSI HC50 Micro D - HC50 Micro D			29 39
SCSI C50M-HC68 Wide SCSI			65 -
SCSI HC50 Micro D - HC68 Wide SCSI			65 -
SCSI D25M-C50M			6 19

ORIGINAL INKJET CARTRIDGES

SWriter 2200 blk	25	StyleWriter 2200 col	29
StyleWriter II/1200	14	SWriter Pro HiCap Blk	7
SWriter Pro Colours	8	A3 Colour Black	19
SWriter blk Tank	11	SWriter Col Tank	17
A3 Colour Colours	23	SWriter 2400 Black	20
SWriter 2400 Col	25	Epson Sty Col, Black	12
Epson Stylus Col, Col	29	HP DW 310/320/Port	15
HP Deskwriter Black	18	HP Deskwriter Colour	18
HP DJ 1200CPS Black	17	HP DJ 1200CPS Cols	24
DJ 850C/1600CM Blk	20	HP DJ 850C Colour	25
HP DW 660C Black	19	HP DW 660C	20
HP Paintjet Colour	20	HP Paintjet Black	18
HP Paintjet XL Black	15	HP Paintjet XL Colours	17
HP Paintjet XL300 Blk	15	HP Pjet XL300 Colours	17

TONERS

Personal LW300/320	45	LW Select 300/310	49
LW Select 360	71	LW 16/600 Pro 630	91
LW Pro 810	200	HP Laserjet 4ML/4MP	43
HP IIIsi/4SiMX	85	HP Laserjet 4M/+	68
HP Laserjet 5MP	69	TI MicroLaser	30

DATA CARTRIDGES

2Gb/4Gb 90m DAT	8	4Gb/16Gb 120m DAT	15

MO DISCS

128Mb 3.5"	14	230Mb 3.5"	19
1.3Gb 5.25"	75	1.5Gb 5.25"	95

SYQUEST CARTRIDGES

44Mb	29	88Mb	34
105Mb	35	135Mb	15
200Mb	52	270Mb	41

IOMEGA CARTRIDGES

Zip 100Mb	12		

SOFTWARE

ACCOUNTING

MYOB 3.0	145	Ritz Accounting	215
Ritz Median	129	Ritz Payroll	89

BUSINESS

Lotus Notes Express	135	MS Mail 3.1	173
MS Project 4.0	150	Now Up-To-Date 3.0	59
Symantec C++ Pro	199		

CAD

MiniCAD 5.0	450	TurboCAD 3D v2	81

COMMUNICATIONS

Connect II	120	Fax Pro	69
Snatcher	35	MicroPhone LT	39
MicroPhone II 5.0	90		

DTP & FONTS

Acrobat 2.0	109	Acrobat Pro 2.0	355
Corel Photo CD	FROM 14	Corel Photo library	699
Fetch 1.2	99	Fontographer 4.1	335
Kai's Power photos	99	PageMaker 5.0	369
PageMaker 6.0	FD 385	QuarkXPress 3.31	550
QuarkXPress Pmac3.31	625	Super ATM	40
Typestry 2.1	150	Type Reunion	30
Type Styler	97		

DATABASE

ACT! 2.0	115	4th Dimension 3.0	570
4D First	179	FileMaker Pro 2.1	89
MS Fox Pro 2.1	72		

GRAPHICS

Add Depth	50	Adobe Collection	455
Astound 2.0	85	BlackBox plug in	55
Canvas 3.5	149	Claris Draw	191
Claris Impact	89	Colour Studio	289
Dabbler	60	Debabelizer Lite	83
Dimensions 2.0	95	Envelopes	75
Fetch 1.2	130	Font Studio 2.0	245
Freehand 5.0	280	Gallery Effects vol 1	98
Gallery Effects vol 2	98	Gallery Effects vol 3	98
Illustrator 5.5 CD	255	Infini-D	399
Jag II	30	Kai's Power Tools	92
KPT Bryce	92	KPT Convolver	92
KPT Vector Effects	92	LetraStudio	149
LivePicture 2	525	LogoMotion	99
MacDraw II	125	MS Powerpoint	255
Painter 3.1	250	Paint Alchemy	67
Persuasion 3	224	Photoflash	150
Photoshop 3.0	315	Quicktime Starter kit	49
RayDream Designer	225	RayDream DreamPack	235
Sketch	499	Sketcher	55
StataVision 3D	380	StrataStudio Pro	790
Streamline 3.0	89		

INTEGRATED PACKAGES

Claris Office	429	Claris Works 4.0	80
MS Office 4.2	320	MS Works 4	50
WordPerfect Works	140		

MULTIMEDIA

Adobe Premier 4.0	335	Elastic Reality	185
Morph 2.5	76	MM Director 4.0.4	680
TransJammer	80	Video Director	105

OCR

OmniPage Direct	65	OmniPage 5	299
TextBridge 3.0	69	TextBridge Pro	249

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IMPACT 2.0

- PowerMac native version
- DataDraw - turns data into charts
- New styles & diagram symbols
- New presentation features

Adobe PageMaker

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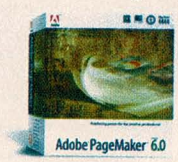

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- Technology from PARC for increased accuracy
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- Maintains formatting
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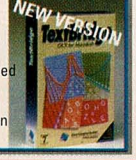

SOFTWARE

UTILITIES

After Dark 3.0	18	After Dark Collection	30
Claris Organiser	39	Connectix PBook Utils	59
Connectix DT Utils	59	DiskDoubler Pro 1.1	51
MacLink + PC 7.5	129	MacLink + Trans 7.0	93
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Dvorak's Symphony	39	Earth Command	21
Eleventh Hour	30	Gingerbread man	26
Hard Day's Night	24	Head Candy	13
If Monks had Macs	21	International Tennis	30
Journeyman Proj Turbo	34	Kings Quest VII	29
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Mozart:Dissonant Ott	30	Myst	32
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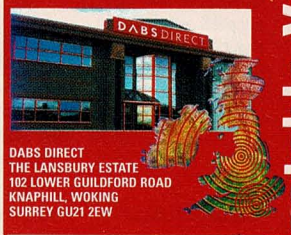

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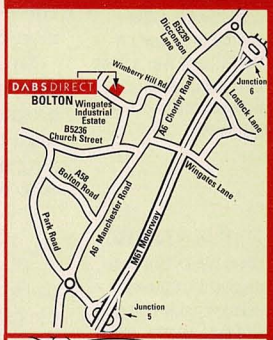

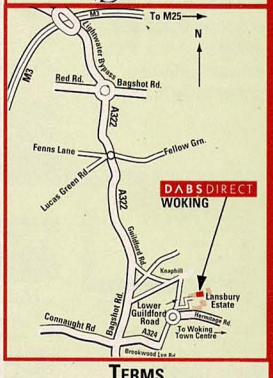

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ClarisWorks 4.0

Does *ClarisWorks 4.0* transform an already impressive package into an outstanding one? Or is it hardly worth the disks it comes on? Rod Lawton casts his vote.

Try all the *ClarisWorks 4* modules for yourself – it's on the CD!

Integrated packages, such as *ClarisWorks*, don't do anything that individual word processors or databases can't – in fact, usually they do a bit less than dedicated applications. But an integrated package is a single application, using a fraction of the RAM that an equivalent set of dedicated applications would. To cover all the features in *ClarisWorks* you'd need *MacWrite, Excel, FileMaker Pro, ClarisDraw* and *MacPaint*. While *ClarisWorks* works in about 1.4Mb of RAM, all these others between them would take something like 10Mb.

There's more. Because all the 'modules' use the same core software, they are integrated to the point where you can not only choose all the different document types from the same **Open** or **New** dialogues. You can embed 'draw' frames in word processor documents, 'paint' frames in spreadsheets and 'text' frames in draw documents. These frames act as fully-functional mini-documents within the main one.

So although integrated suites like *ClarisWorks* lack the power of dedicated programs, they are affordable, don't need much RAM, and are a good stepping stone if you're just starting out with business-oriented applications.

MACFORMAT Classic

APPLESCRIPT

Although *ClarisWorks 4.0* is AppleScript-compliant, it's not 'recordable' or 'attachable', and the supplied suites are not especially powerful – it's mainly of interest to programmers.

PC COMPATIBILITY

ClarisWorks 4.0 is shortly to appear on the PC, and files will be interchangeable between the two platforms.

PRESENTATION

ClarisWorks can also display slideshows, using variable delays and fade effects. And it can show QuickTime movies – in fact, it's an extremely effective presentation tool!

A way with words

ClarisWorks 4.0's word processing module offers everything you'd expect from a word processor in this day and age – word count, spell-checker and thesaurus included. And it has more, too. The previous version allowed outlining (where you can break down topics into a hierarchical structure), but this one enables you to set up any number of individual outlines within a document – an unusual feature. And the word count function has been extended so you can count the words in a selected area, not just the whole document.

There are two other major improvements. Previously you could create headers and footers, but only one of each per document. Now you can break your document up into sections, and each section can have its own headers and footers (as well as different margin sizes and numbers of columns, to name but a few).

The other major improvement is the fuller implementation of style sheets. Previously you could create character-based styles only – including font, point size and style. *ClarisWorks 4.0's* style sheets include paragraph formatting – margins, indents, line and paragraph spacing. The new styles are available via a pop-up menu on the ruler bar or from a style sheet palette.

ClarisWork 3.0's word processing module was beautifully simple but only moderately powerful. Version 4.0 keeps its simplicity but improves its power so that it now rivals anything you could buy separately for all but the most demanding jobs.

Drawing the crowds

A drawing package is one that creates shapes out of scalable vector graphics, while a paint package is pixel-based. Drawing packages are generally used for smooth-toned and clinical diagrams, while paint packages excel at image manipulation, dramatic colour and contrasts, and painterly effects. In *ClarisWorks* you get both types of application. Neither is particularly powerful, but both are adequate. The Draw module enables you to create some decent-looking diagrams and logos and, although it's not in the same league as *FreeHand* or *Illustrator*, you'd have to be a professional designer to exploit the difference.

In version 4.0, Claris have made only one major improvement, and that's to include a 'free rotation' function – previously, you could only rotate objects in 90 degree increments, which was a major limiting factor.

Painting the picture

ClarisWorks' painting module is no *Photoshop*, but it does enable you to create and edit bitmap pictures and do some elementary image editing. The paint and draw modules aren't going to set the graphics world alight, but you can create some neat designs.

Don't forget that both the paint and draw modules enable you to add text 'frames'. The draw module works as a surprisingly good DTP package, enabling you to combine text and graphics in a free-form way and, because text frames can now be linked, you can design posters, brochures and newsletters with much of the flexibility offered by full-blown DTP software. Come to that, there aren't many DTP programs that enable you to create and edit graphics on the page.

Just for the record

ClarisWorks' database module is powerful enough for most small businesses, let alone home use. It's not quite in the league of Claris' own *FileMaker Pro*, but it's close. The *ClarisWorks* database is a standard card-index program – it doesn't support 'look-up' fields or other relational tools. However, you

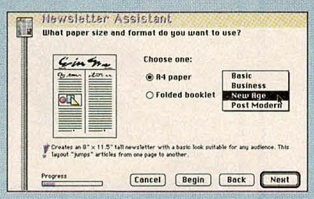
TOP TEN UPGRADE FEATURES

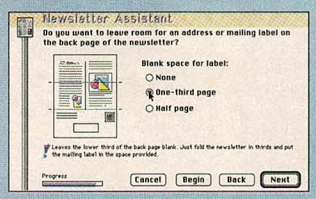
New to *ClarisWorks 4.0* are:

- Stylesheets now include paragraph formatting.
- Styles are accessible from the menu bar and/or palette.
- Macros and customisable shortcuts are now available.
- You can create multi-section word processing documents.
- New database field types.
- Saveable database search routines.
- Libraries of graphics, text and other objects.
- Free rotation in draw module.
- HTML translator.
- AppleScript compliance.

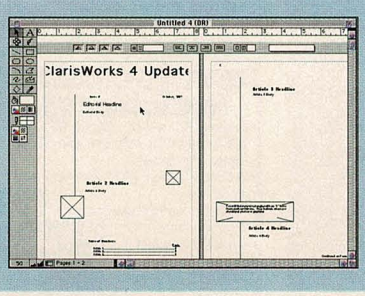
NEED ANY ASSISTANCE?

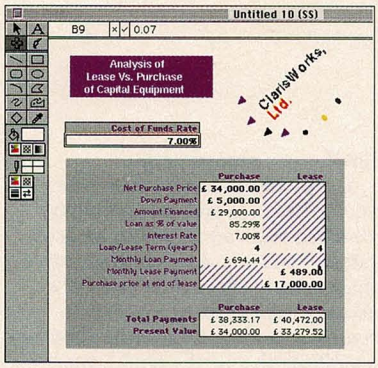
One of *ClarisWorks'* assistants takes you through the process of creating a newsletter.



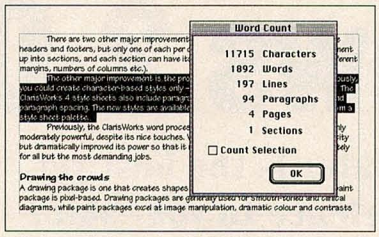


ClarisWorks has 'assistants' and templates to help you create common document types. The assistants walk you through the whole process, step by step, asking you key questions and generating a document automatically for you. Here we've used an assistant to create a newsletter – the finished document even has notes and labels to tell us what to write where.

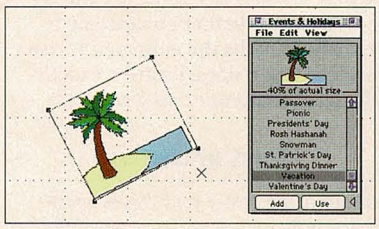



Untitled 10 (SS)
Analysis of Lease Vs. Purchase of Capital Equipment
ClarisWorks, Ltd.
Cost of Funds Rate
7.00%
Purchase
Lease
Net Purchase Price £ 34,000.00
Down Payment £ 5,000.00
Amount Financed £ 29,000.00
Loan as % of Value 85.29%
Interest Rate 7.00%
Loan/Lease Term (years) 4
Monthly Loan Payment £ 694.44
Monthly Lease Payment £ 489.00
Purchase price at end of lease £ 17,000.00
Total Payments £ 38,333.17 £ 40,472.00
Present Value £ 34,000.00 £ 33,279.52

You can now add colours and patterns to your spreadsheet cells in a desperate attempt to liven up all those tedious accounting reports.



The word processor module can now count the number of words in a selected body of text, as well as in the whole document.



The draw module now boasts free rotation rather than restricting you to 90 degree increments.

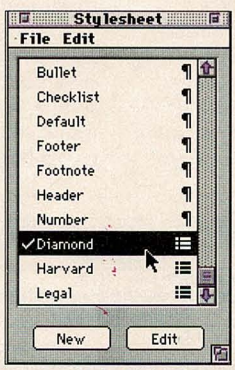
can have multiple layouts, and *ClarisWorks'* integration of tools gives you flexibility. You could design, for example, a database that prints out full-page, properly designed invoices and, in another layout, records which invoices have and haven't been paid. You could also use 'calculation' fields to automatically add VAT and generate a grand total, and 'summary' fields could total the unpaid invoices.

Mail-merge is easy: set up a template page in the word processor module, link it with the data file, specify the fields to use, and hit Print.

ClarisWorks 4.0 offers some useful enhancements over version 3.0. There are new field types which include check boxes (which you could use for paid and unpaid invoices), radio buttons (for choosing from a set of mutually-exclusive options), and pop-up fields (which offer a pre-defined list of alternatives).

You can also save sets of search criteria, name them and access them immediately from a pop-up menu on the tool bar. You can also change layouts, create reports and sort records from new pop-up toolbar menus.

The database module has no more outright power than before, but setting it up and analysing the data are now easier – which is particularly useful if you're designing a database for other people to use.



Version 4.0 of *ClarisWorks* now incorporates paragraph formats into its styles, and these can be selected from a floating palette.

The numbers game

The *ClarisWorks* spreadsheet has always been a good performer, but it's left well behind by Microsoft's *Excel* in terms of speed of use, flexibility and power. Two new features bring it closer to the Microsoft product: you can now fill cells with a series of dates or numbers, and you can apply fill patterns to cells. Both of these were irritating omissions in previous versions, so it's good to see them incorporated.

Although the *ClarisWorks* spreadsheet is not as powerful as *Excel*, it has a full complement of functions and can create a variety of charts (labels and legends can now be styled more effectively). It really has more than enough power for home and small business users.

Family values

Integrated packages tend not to be taken too seriously, but *ClarisWorks 4.0* should be taken very seriously indeed. Its individual modules – especially the word processor, database and spreadsheet – rival dedicated packages for features and power, and the integration of the modules means that *ClarisWorks* runs in just 1.4Mb of RAM and integrates to the point where you can embed different document types 'live' in others.

High-end professional users need high-end professional software, but if you're a beginner, running a small business or just using your Mac to organise your life, *ClarisWorks 4.0* should amply meet your needs.

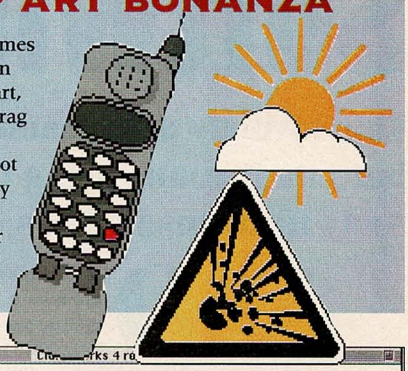
Even if you already own *ClarisWorks 3.0*, version 4.0 is well worth the upgrade price (only £57.58). The word processing module is dramatically improved and the changes to the database module are highly valuable. You can now save graphics, text and frames in 'libraries'. The improved style sheets can be used across all the modules and you can now record macros to automate common tasks. You can even assign these macros to customisable shortcut palettes. You can also export documents in HTML format, just in case you're planning on setting up your own Web site, and it offers its own comms module to boot. Version 4.0 is AppleScript-compliant too, and comes with four sample automated scripts.

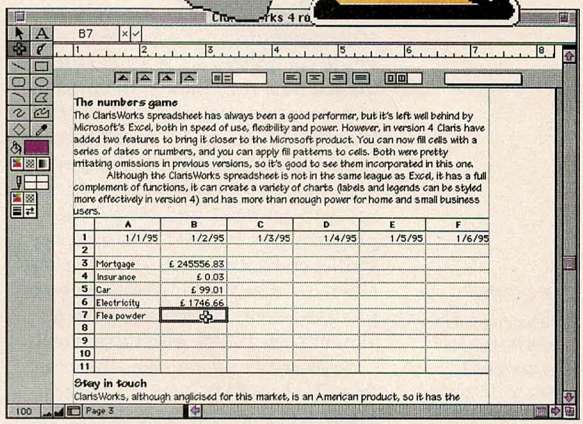
There are a couple of cons. The *ClarisWorks 4.0* file format is no longer compatible with the old files – you can read your old files, but only via a conversion process that makes them unreadable to the version that created them. And *ClarisWorks 4.0* needs an LC or better to run – so that's one less program that runs on a Classic.

Against the pros, though, these are minor problems (unless you own a Classic). *ClarisWorks 4.0* is an extremely good package at an extremely good price. It's even worth upgrading to it if you already own the last version. **MF**

CLIP ART BONANZA

ClarisWorks 4.0 comes with over a dozen libraries of clip art, which you can drag onto your documents. They're not quite Tate Gallery material, but they're useful for livening up things up.




B7
The numbers game
The ClarisWorks spreadsheet has always been a good performer, but it's left well behind by Microsoft's Excel, both in speed of use, flexibility and power. However, in version 4 Claris have added two features to bring it closer to the Microsoft product. You can now fill cells with a series of dates or numbers, and you can apply fill patterns to cells. Both were pretty irritating omissions in previous versions, so it's good to see them incorporated in this one.
Although the ClarisWorks spreadsheet is not in the same league as Excel, it has a full complement of functions, it can create a variety of charts (labels and legends can be styled more effectively in version 4) and has more than enough power for home and small business users.
Stay in touch
ClarisWorks, although anglicised for this market, is an American product, so it has the
Page 3

One of *ClarisWorks'* strengths is its ability to combine different document types. Here a spreadsheet 'frame' is embedded in a text document.

WEB WEAVING

ClarisWorks 4.0 comes with an HTML primer. You will need a Web browser to look at your exported HTML documents, but everything else you need, including explanations, is here.

ON-LINE

ClarisWorks includes a communications module. But whatever on-line service you subscribe to, they invariably provide their own software, which makes this a somewhat superfluous feature.

CLARISWORKS 4.0

Price: £151.58 (upgrade price £57.58).
Out: now.
Requires: LC or better, 4Mb of RAM, System 7.0 or later.
Contact: Claris on 0181 756 0101.

FEATURES 90%
Enough power to rival dedicated applications, in one integrated suite.

EASE OF USE 95%
Couldn't be simpler, and there are 'assistants' to help you create the documents you want if you're a beginner.

DOCUMENTATION 88%
Doesn't really show you the software's true potential, but explains the basics in a concise and friendly way.

VALUE FOR MONEY 94%
With features like this there's no good reason for buying dedicated software unless you *know* you need it.

MACFORMAT RATING 92%

SoftWindows 2.0

This lovingly programmed PC emulator is the best yet, but can it really bring the PC experience to your Mac? Andy Hutchinson finds out if it's worth the hassle.

WINDOWS

SoftWindows 2.0 can run any PC software that's designed to operate on Windows 3.0 to Windows 3.11.

On the face of it, emulators are a very good thing. They enable you to use software available exclusively for other computers. The problem is that while computers are great at being themselves, they balk at the prospect of pretending to be something else. Whether it's the other computer's display, sound capabilities or floppy disk standard, emulation is a tricky thing to get right, and even if the programmers succeed in producing a stable, compatible emulator, the considerable demands it places on your processor tend to lead at best to a slower pace and at worst to a crash.

SoftWindows 2.0 emulates the Windows 3.11 and MS-DOS 6.22 operating systems, on your Mac. It claims to emulate the Intel 80486DX processor, but its success in doing this really depends on the power of your Mac – the more powerful your Mac, the closer it'll get. An enhanced mode is also available in *SoftWindows* – a 386 or 486 enhanced PC simply speeds up disk access and day-to-day Windows operations. Whether enhancement actually benefits the emulated PC isn't evident, but it does illustrate exactly the level of attention to detail here.

Best behaviour

It's amazing really that this is a software-only emulator. Its emulation code has been programmed extremely successfully in terms of compatibility and ease of use. The configuration program automatically installs all the software for you, sets up a virtual PC hard drive (you pick the size), and then determines which memory settings will work best for you. It's the kind of installation program that gives you faith in a product.

The emulation software includes all the features that you could conceivably require. As well as emulating Windows 3.11 and DOS 6.22, it emulates a PC mouse for you, it enables you to configure the amount of extended and expanded memory you're using (this is important for PC software), and you can even configure the screen resolution you require (256-colours is the maximum, unfortunately). What it won't enable you to do is emulate any of the PC's popular soundcards (such as Sound Blaster), so you'll be stuck with weedy PC speaker sounds. One of the best features is the nifty way it turns on the CD-ROM: simply type in 'usecd' and it loads the Microsoft CD-ROM extension for you automatically.

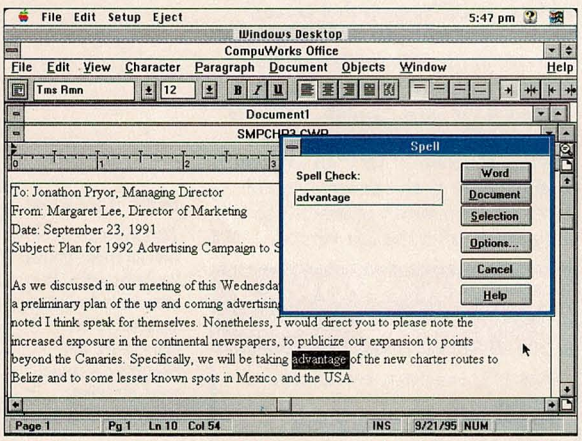
The problems start to arise when you've installed and configured *SoftWindows*, and you try to run an application – and you discover that everything runs so slowly that you can't actually achieve anything. For instance, in testing, a Performa 5200 had trouble displaying the pull-down menus in a two year old *MS Works* package, let alone accepting the text being typed in. A 6100 managed to run at the equivalent of a slow 386 PC, while an 8100 was about the standard of a slow 486 PC. You need a really powerful Mac if you're going to have any real joy running programs.

Also, in common with the PCs it emulates, *SoftWindows* requires lots and lots of memory. You'll need at least 16Mb of RAM if you're to run Windows – 24Mb would be better. Fortunately, it works just fine with the superb *RAM Doubler* (£70.44, Computers Unlimited, 0181 200 8282), so you can save yourself a fortune by investing in that rather than lots of RAM.

What about the software?

The experience of using Windows software on a Mac is bizarre. For starters, you've still got the ever-present Mac drop-down menus at the top of the screen. These enable you to tweak the emulation options until you find your optimum setup – if the PC software crashes, you can even perform a local soft boot and drop back into the DOS startup procedure.

The Program Manager and File Manager, which are the foundation stones of the Windows operating system, work adequately but slowly under emulation. The File Manager recognises all of the appropriate drives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Cancel
Help
To: Jonathon Pryor, Managing Director
From: Margaret Lee, Director of Marketing
Date: September 23, 1991
Subject: Plan for 1992 Advertising Campaign to S
As we discussed in our meeting of this Wednesda
a preliminary plan of the up and coming advertisin
noted I think speak for themselves. Nonetheless, I would direct you to please note the
increased exposure in the continental newspapers, to publicize our expansion to points
beyond the Canaries. Specifically, we will be taking advantage of the new charter routes to
Belize and to some lesser known spots in Mexico and the USA.
Page 1
Pg 1 Ln 10 Col 54
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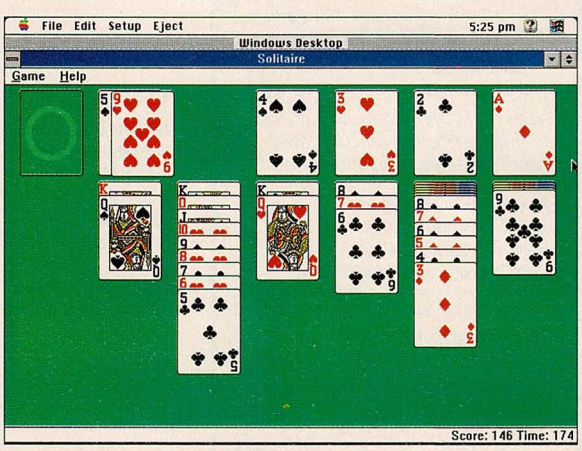
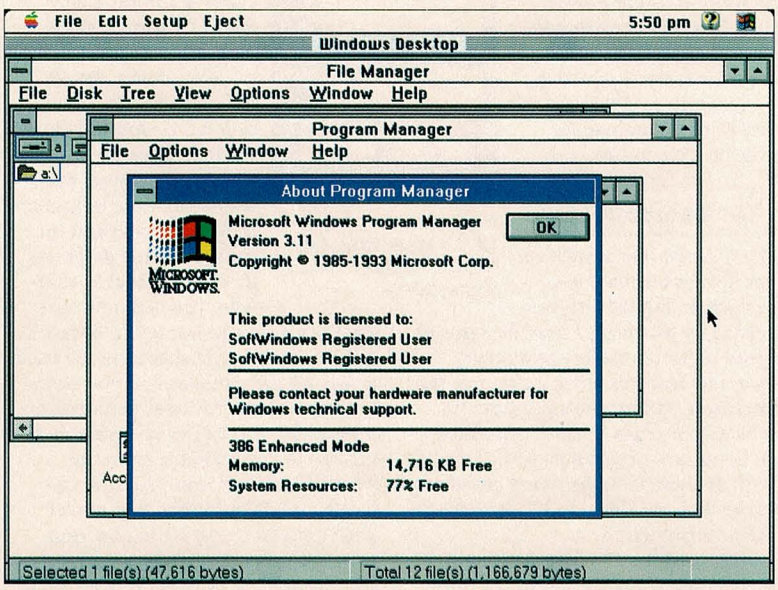
9/21/95 NUM

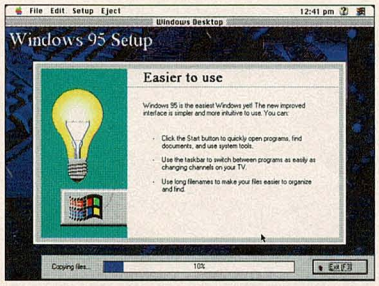
SoftWindows enables you to run Windows-compatible software on your Mac. It's been reliably programmed, but everything runs just too slowly.



Yes! Now you too can play that Windows classic, *Solitaire*, on your Mac!



SoftWindows enables you to set up your Mac to run in 386 or 486 enhanced Windows mode.


File Edit Setup Eject
12:41 pm
Windows Desktop
Windows 95 Setup
Easier to use
Windows 95 is the easiest Windows yet! The new improved interface is simpler and more intuitive to use. You can:
Click the Start button to quickly open programs, find documents, and use system tools.
Use the taskbar to switch between programs as easily as changing channels on your TV.
Use long filenames to make your files easier to organize and find.
Copying files...
10%
Exit Fit

Windows 95 isn't supported by *SoftWindows*, but we did manage to get it working, sort of...

and even the CD, if you've configured it from the DOS prompt. The display on your monitor looks exactly like it does on a PC, but the screen is much slower to update.

When it comes to running software, *SoftWindows* is at least reliable. It enables you to run business applications, such as spreadsheets, but only incredibly slowly. Multimedia also runs slowly, and you're likely to experience serious difficulties with sound and QuickTime compatibility. You can run utilities, but only if they're compatible with the Windows 3 operating systems, and you can also run games, but only two or three year old ones, and then only on a really powerful Mac.

It does enable you to run rudimentary word processing packages, but unless you have a powerful Mac, they'll run so slowly that they're virtually unusable – which is an ongoing problem no matter what you're trying to emulate.

As for physical differences between Macs and PCs, most PC software is not hardware reliant, so there shouldn't be any problems, but you wouldn't be able to run the PC version of *Photoshop*, for example, because it uses a different number of colours.

Is it for you?

So who could realistically make use of *SoftWindows?* If you can't afford the £700 for a cheap 486 PC and you only want to run a two year old Windows 3 program anyway, then you'll probably get along fine with *SoftWindows 2.0* – so long as you're prepared to shell out almost £400. If you want to run *Word 6.0* and you've got a middle of the range PowerMac, you too should live to tell the tale. If, however, you have a burning desire to try out the latest PC games, then forget it – you've got more chance of finding The Star of India diamond in the bottom of a packet of Coco Pops.

If you can't buy Mac versions of the software you want – say, *Lotus 1-2-3*, or other PC-only business software – or can't procure a DOS compatibility card to play all those PC games, and you really feel you're missing out, then maybe you should take the plunge and buy a Pentium – that'll cost you a grand upwards, but it's the only way you'll really get the benefits of owning both Mac and PC.

SoftWindows' latest incarnation is one of the best pieces of emulation software you're likely to encounter – it's an impressively reliable piece of programming but, unfortunately, runs just that bit too slowly to be a truly universal solution. **MF**

SOFTWINDOWS 2.0

Price: £387.75 for the CD-ROM or £325 for the floppy disk. **Out:** now.
Requires: any PowerMac, 16Mb of RAM minimum, System 7.1 or later.
Contact: Insignia Solutions on 0800 667706.

FEATURES 84%
A very comprehensive emulation program that probably goes further than anything you've seen before – brilliant if all you need is a slow 386.

EASE OF USE 85%
Again, full marks to the programmers. From installation to use it's been very well programmed.

DOCUMENTATION 65%
A bit on the skimpy side.

VALUE FOR MONEY 65%
With the cost of DOS cards coming down all the time, this sort of software emulation isn't really worth it.

MACFORMAT RATING 68%

PC HIERARCHY
386 and 486 PC are the ranges of PCs before you get to Pentiums. Pentium is the top range of PCs currently available.

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FotoFUN! printer

A printer capable of full-colour, postcard-sized prints from a Mac for under £420? Pause a moment and take a look at this new dye sublimation printer from Fargo.

Getting high quality colour output from a Mac has long been an expensive hobby. Photorealistic printers usually cost thousands of pounds to buy and a small fortune to keep going, and the other option – using a bureau – can take more time than is available and can also cost a pretty penny. So it's surprising to hear of a dye sublimation printer that costs less than £420, yet can print 16.7 million colours. Welcome to the Fargo FotoFUN! printer.

Your first impression of the printer, on seeing the package, is to wonder how something so small can produce high quality prints. It's a truly compact printer – less than 10 inches wide and weighing in at only 7lbs – so it really does fit on the desktop next to your Mac. The drawback of this cuteness is the limitation on the size of the final print, which is 6 x 4 inches, the standard postcard size.

To install the driver software you simply click on the installer and select **Foto Fun** in the Chooser. You can then set up the printer options, such as size and image intensity, by selecting **Page Setup** from the **File** menu. Installing a print ribbon is a little fiddly, and you should take care to avoid touching or creasing the surface, because this will impair print quality. There is no sheet feed facility on the printer, which means you have to feed each sheet of paper by hand into the printer at the start of the print process – but this isn't the disadvantage that it would be on a mono laser printer.

To test the printer we selected a range of images, including photos of people, scenery and even landscapes created in *KPT Bryce*. All the images were printed to the maximum size of 6 by 4 inches at the recommended resolution of 203dpi. We ran the printer on two machines, a Performa 5200 (PowerMac) and a Performa 630, and there was surprisingly little difference in print times between the two. Printing from *Photoshop*, the test images took between three and four minutes to complete – which is about average for a dye sub printer.

Once the print cycle starts, the paper is fed back and forth by a motor, while the printhead moves across three coloured ribbons to produce the image. An optional fourth coating layer is applied onto the whole of the image area to protect the image and so extend the life of the final print.

The big question

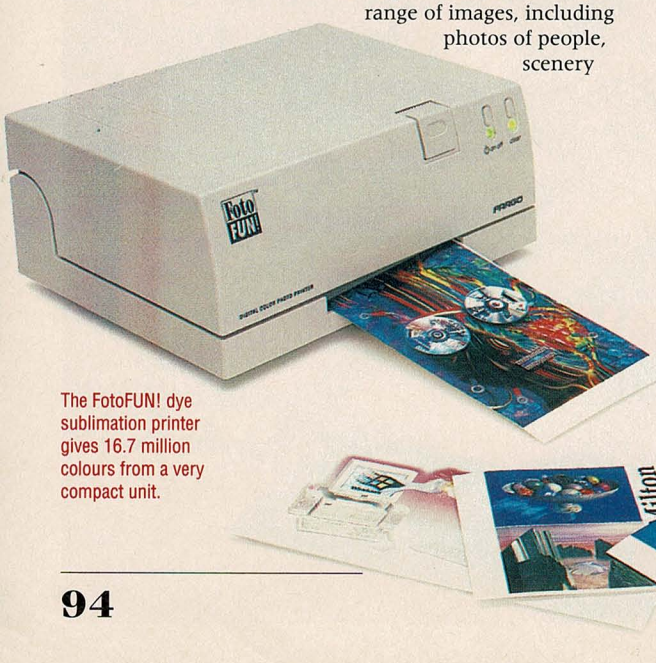
In testing, print quality was generally good – the colours were bright, although in some cases stronger colours were over-saturated. As black is made up by combining the three base colours rather than having a fourth black print ribbon, some black areas lacked density – a problem you don't experience on dye sub printers that offer black as a fourth colour. Skin tones were good, as were high contrast elements, but the printer did struggle with subtly changing tones such as in sunset scenes and those in our *KPT Bryce* generated images, where a slight banding was noticeable. Some prints took more than one go to get the best quality, and brightness and contrast often needed slight adjustment in *Photoshop*. However, with a little experience of the printer it was soon obvious which prints needed optimising. The printer does not print text well, but, in fairness, dye sublimation printers are not designed to print text.

Another slightly unusual option offered by the FotoFUN! printer is to print your photos directly onto a mug, although you have to buy the necessary clamps and mugs, which makes it an expensive novelty option at between £6 and £9 per mug, depending on how many you buy. Meanwhile, postcard size prints work out at just under £1.30 each on normal weight paper, and there are also options for heavier paper and self adhesive paper, which come in at £1.40 per print. At these prices you can get photorealistic Mac output for not much more than the price of getting a negative reprinted at a high street one hour minilab.

For colour output from a Mac the Fargo FotoFUN! offers a good quality solution at an affordable price. The print times are reasonable, considering the process involved and the quality achieved. The print size may be a limitation, but if you have smaller colour printing needs, the time and money savings (particularly over using a bureau) are tempting. **Colin Dalziel**

How many colours?

Where does the figure of 16.7 million colours come from? Well, each of the three base colours, cyan, yellow and magenta, can be produced in 256 levels of intensity, so if you calculate 256 x 256 x 256 you get 16,777,216 or 16.7 million possible combinations!



The FotoFUN! dye sublimation printer gives 16.7 million colours from a very compact unit.

How dye sublimation printers work

To create photorealistic images a printer needs to be able to produce 16.7 million colours. Dye sublimation printers use three dye coated ribbons, yellow, cyan and magenta, and the three colours are combined in varying degrees to form this vast range of colours. Each ribbon is placed over special dye-receptive polyester-coated paper, and a heated printhead moves across the ribbon. As heat is applied to the ribbon the dye coating sublimates, or turns directly from solid to gas with no intermediate stage. The amount of gas produced is proportional to the heat of the printhead, so more heat produces a higher level of the given colour. The coloured gas is absorbed into the coating on the paper and layers are built up to give the final colour range. The final image quality is excellent, and because it's made up of absorbed gas particles the dot size is small enough not to be detectable by the naked eye.

FotoFUN! printer

Price: £410 (paper and ribbon for 36 prints £45.80). **Out:** now.
Requires: LC475 or better, 8Mb of RAM, System 7 or later, 20Mb of hard disk space.
Contact: Bannerbridge on 01268 419101.

Features 88%
All you could want from a dye sublimation printer, although it's limited to 6 x 4 inch prints.

Ease of use 86%
Simple installation and straightforward operation.

Documentation 85%
Clear, plain manual, with good troubleshooting section.

Value for money 95%
A real breakthrough in the price of quality colour printing.

MACFORMAT RATING 87%

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Intellihance

Automatic colour correction? Artificial Intelligence? *Intellihance* is a new *Photoshop* plug-in that promises all that and more to ease your toil...

If you spend much of your time colour correcting scans, this new plug-in may be your saviour. *Intellihance* is described by its creators, DPA Software, as a one stop automatic image correction system. Claiming to use artificial intelligence, it analyses your images and automagically corrects brightness, contrast, gamma and saturation, while removing excess noise and increasing sharpness. And if you think all that's too good to be true, you're in for a surprise.

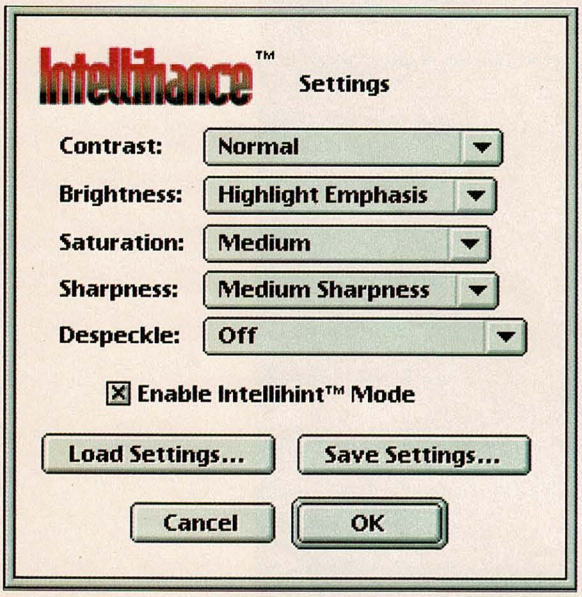
The package consists of three filters for greyscale, RGB and CMYK images. Selecting the appropriate filter reveals a dialogue box with five pop-up menus and a few buttons. The menus enable you to adjust contrast, brightness, colour saturation and sharpness, but instead of selecting numbers, your choices are from words like Soft, Snappy, Hard and Light. The other important difference is that *Intellihance* only changes images if necessary – it doesn't affect sharpness if the image is already sharp. Similarly, it doesn't affect brightness if the image is already within your specifications. There's also an additional filter to remove noise from images scanned with low cost scanners.

Intellihance works very well on averagely lit subjects, but the real surprise comes when you try to process more 'difficult' images. Artificial or not, it certainly is intelligent – when put to the test using a variety of images, the results were almost always exceptionally good, although it did fail somewhat with a picture of a red rose over a black background. But in such cases, *Intellihance* offers you another option, called Intellihint. Using this mode, you can limit the part of the image that *Intellihance* uses when analysing it.

The *Pro* version of *Intellihance* offers extra features, mostly for the professional user. These include scanner and output calibration, automatic cast removal and a de-screen option. A calibration strip and a step-by-step calibration tutorial are included. *Intellihint Pro* includes a more friendly version of the *Photoshop* Levels dialogue box, where you can set the white, mid and black point with visual feedback. If you have *QuicKeys* or *Tempo 2* you can use *Intellihance* (either version) to batch process images unattended.

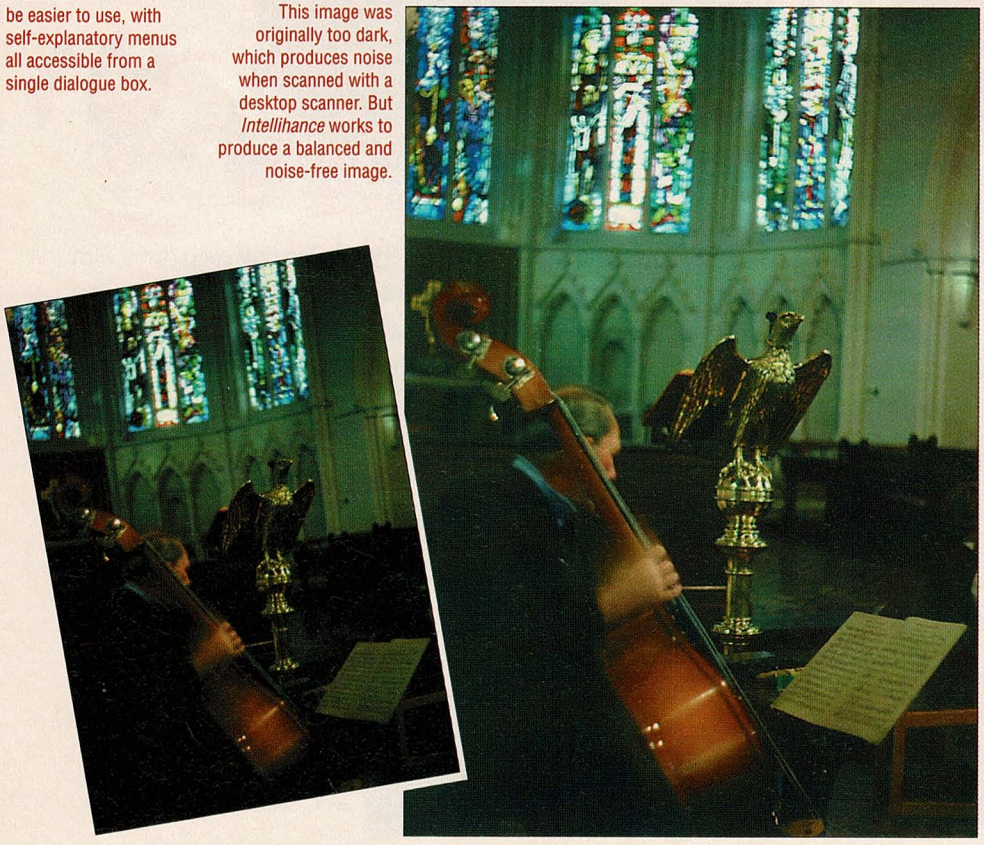
Intellihance is a very impressive product – one of the few plug-ins that you'll use again and again. The standard version is well priced and should be a great time-saver, while the *Pro* version offers accurate calibration and the extra options are excellent, although it's rather expensive. Bear in mind, however, that *Intellihance* is RAM hungry, requiring memory about 1.5 times the size of the image, and it is not PowerMac native yet. The manual is excellent and goes beyond merely covering the product's features. There are scanning and calibration tips as well as a glossary of colour reproduction terms. Overall this is a useful tool that's well worth having. **OFIR GAL**

MACFORMAT Classic



Intellihance could not be easier to use, with self-explanatory menus all accessible from a single dialogue box.

This image was originally too dark, which produces noise when scanned with a desktop scanner. But *Intellihance* works to produce a balanced and noise-free image.



INTELLIHANCE

Price: £116.33 (£468.83 for *Pro* version)
Out: now.
Requires: *Photoshop* or other plug-in compatible application, System 7.01 or later, 4Mb of hard disk space.
Contact: Principal on 01706 832000.

FEATURES 90%
All the features you need for a colour corrected and well-balanced image.

EASE OF USE 90%
Very easy, no hidden features.

DOCUMENTATION 90%
Excellent documentation with many user tips.

VALUE FOR MONEY 90%
Well priced, although the *Pro* version is a little expensive.

MACFORMAT RATING 90%

Black Box 2

A box of tricks that can make your *Photoshop* pictures swirl and leave a trail, among other things.

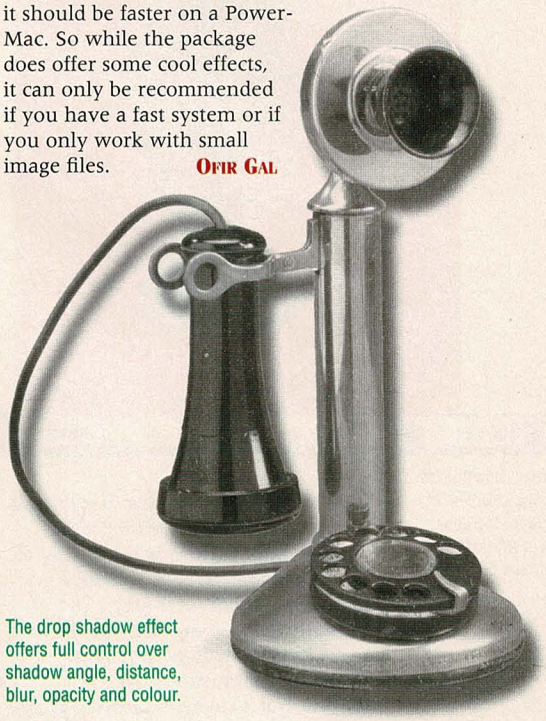
This set of ten *Photoshop* plug-ins provides some unique and impressive effects, such as drop shadow, glow and motion trail. Version 2 also features effect preview, support for layers, light direction control, CMYK, greyscale and lab support, as well as RGB and four new filters. *Black Box 2* is available as a PowerMac native or standard Mac version.

The Glow filter gives a bright, semi-transparent glow around the selection, simulating a light behind the subject. Drop Shadow is self-explanatory, and Cutout is used to make the selection look as if it was cut out of the background. Inner and Outer Bevel make the selection look raised away from the rest of the image. The Carve filter gives a very convincing impression of a carving effect and Motion Trail works better than built-in *Photoshop* alternatives. The Glass plug-in is one of the most powerful effects, making any objects you put through look like they are made of glass or jelly. Swirl twists and warps your image in a whirlpool, and the last effect, HSB Noise, adds random noise to images to make them look more realistic.

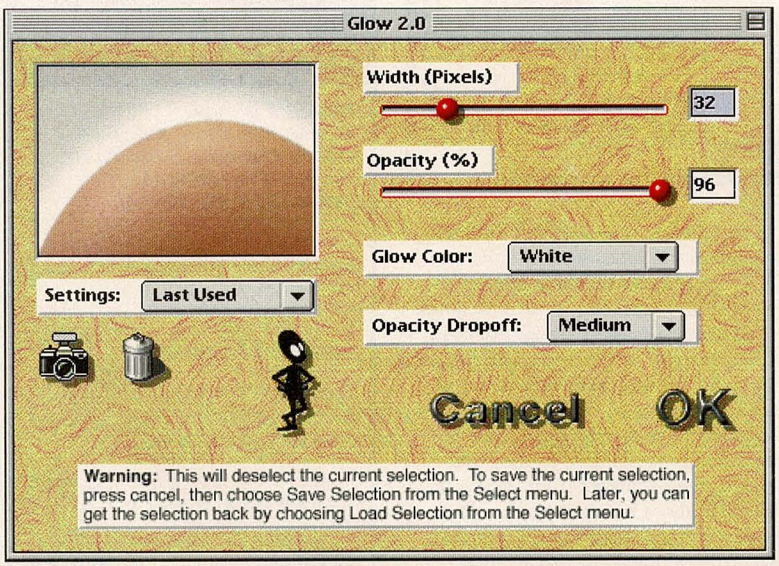
Most filters are used by either working with separate layers or selections. Typically, you select an object and the effect is applied to it. The effect may expand the object as a result, which is the case with most of the filters, causing the selection to be lost. Appropriately, almost all of the dialogue boxes display a warning, reminding you to save the selection in *Photoshop* before applying the effect.

Black Box is design oriented, rather than being strictly an image manipulation filter, and the effects it produces are stunning, but it does suffer from several problems. The first is the new preview window. Although it enables you to pan around the image, it offers no zoom out facility. As a result, when you're working with a large image it shows such a small area of it that it becomes impossible to assess the effect. Also, the preview and some of the effects are extremely slow. The Glass effect was the worst of the lot, taking 20 minutes to process a 4Mb image on a Quadra 800, although it should be faster on a PowerMac. So while the package does offer some cool effects, it can only be recommended if you have a fast system or if you only work with small image files.

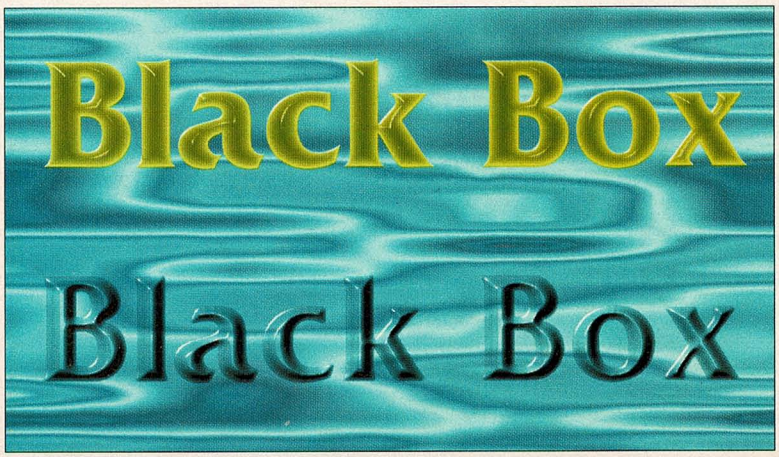
OFIR GAL



The drop shadow effect offers full control over shadow angle, distance, blur, opacity and colour.


Glow 2.0
Width (Pixels)
32
Opacity (%)
96
Glow Color:
White
Settings:
Last Used
Opacity Dropoff:
Medium
Cancel
OK
Warning: This will deselect the current selection. To save the current selection, press cancel, then choose Save Selection from the Select menu. Later, you can get the selection back by choosing Load Selection from the Select menu.

Black Box plug-ins all use a consistent interface. You can create your own presets, which become available from the pop-up menu on the right, and you're always warned to save your selections.



The Glass (top) and Inner Bevel (bottom) plug-ins work very well for creating 3D text effects.

BLACK BOX 2

Price: £92.83 (PowerMac version) or £116.33 (standard Mac version). **Out:** now.
Requires: *Photoshop* or other plug-in compatible application, System 7.01 or later, 2Mb of hard disk space.
Contact: Principal on 01706 832 000

FEATURES 80%
Lots of options enable you to get the exact effect you're after.

EASE OF USE 77%
Simple to use interface, although preview window needs improving.

DOCUMENTATION 90%
Clearly laid out, easy to follow.

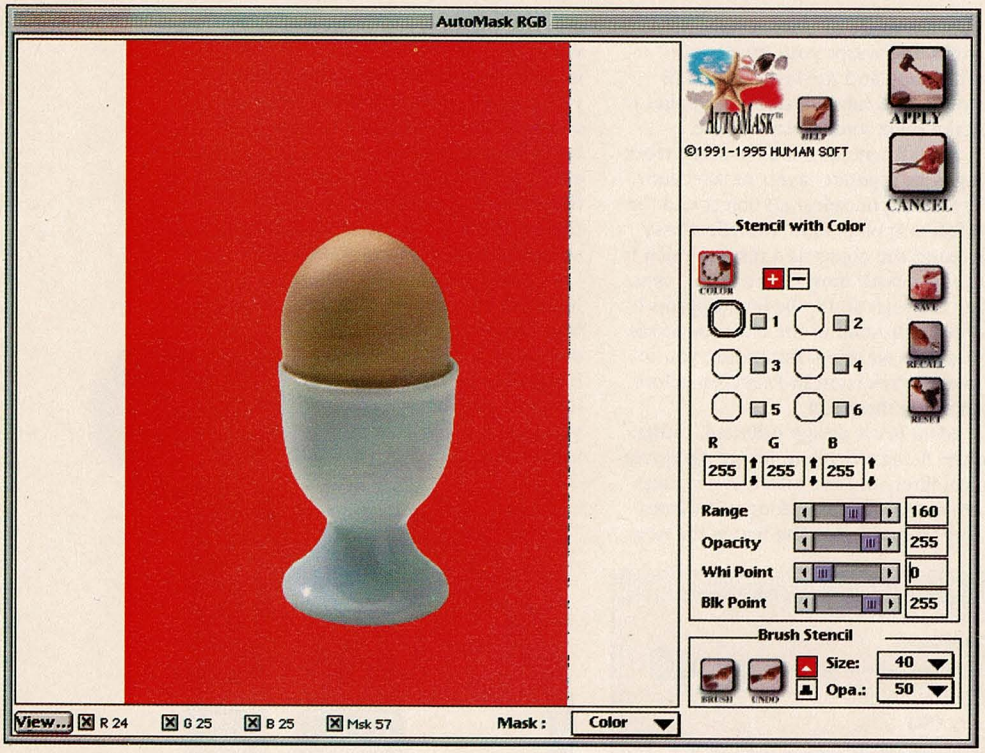
VALUE FOR MONEY 90%
A collection of ten filters makes this package very good value for money.

MACFORMAT RATING 78%

Continued on next page

AutoMask

A new plug-in designed to make masking in *Photoshop* easier. But does it succeed?



AutoMask attempts to make the selection of objects for manipulation in *Photoshop* an easier task.

An important part of working with *Photoshop* or similar applications is the ability to select parts of an image and manipulate them separately. The difficulty is selecting them in the first place. *Photoshop* offers the magic wand and other quite effective options, but *AutoMask* claims to make the selection process even easier.

Unlike most plug-ins, *AutoMask* appears in the Acquire menu. Before you can create a mask, you need to import the file into *AutoMask* – the plug-in uses its own virtual memory driver, so memory requirement is not a crucial issue. The image is then displayed in the *AutoMask* window, which is designed to fit an 800 x 600 screen, so a 14 or 15 inch monitor is no good.

Creating a mask is straightforward. Using the eye-dropper you can define up to six colours, each with its own tolerance settings, which are used together to create the mask. The colours can be defined so they are added to or removed from the mask. There is also a brush to freely add or remove mask areas, but this has no zoom-in option for more detailed work. You can't check if your mask settings are accurate enough, although this can be corrected in *Photoshop* – when you have defined the mask, pressing Apply renders the mask channel and the image is imported into *Photoshop*. If you aren't happy with the result, you have to save the file and acquire it again into *AutoMask*, or tweak the selection in *Photoshop*.

AutoMask also includes a montage mode which gives similar facilities to *Photoshop* layers, but without the memory and speed penalties. You work using proxies of the images and the full size image is rendered only when your work is complete. The layers are merged and can't be separated again. This mode requires a resolution of 1,024 x 768 – a 20 inch screen.

The features *AutoMask* offers are useful but achieved in a less than perfect manner. The user interface is confusing and the manual doesn't help. There's no zoom facility, so accurate work is impossible, and *AutoMask* can only generate a hard-edged mask. This can be sorted using feather or quick mask once the image is in *Photoshop*, but that rather defeats the object. So while *AutoMask* shows promise, it cannot be recommended until these problems are fixed.

OFIR GAL

AUTOMASK

Price: £249. **Out:** now.
Requires: *Photoshop* or other plug-in compatible application, System 7.0.1 or later, 2Mb of hard disk space.
Contact: CGS on 0181 679 7307.

FEATURES 70%
Good colour selection but no zoom facility.

EASE OF USE 70%
User interface is a little messy.

DOCUMENTATION 60%
Poor documentation that leaves many questions unanswered.

VALUE FOR MONEY 60%
You would expect a lot more for this price.

MACFORMAT RATING 65%

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Connectix, the people behind *RAM Doubler*, have done it again and invented *Speed Doubler*, which can speed up your Mac without any additional hardware. We awarded it 81% on page 56. It normally costs £70 (plus p&p), but leading retailers Emerald Creative Technology are offering MACFORMAT readers a discount of £10 – so you can buy *Speed Doubler* for just £60 (plus £2.50 p&p)!

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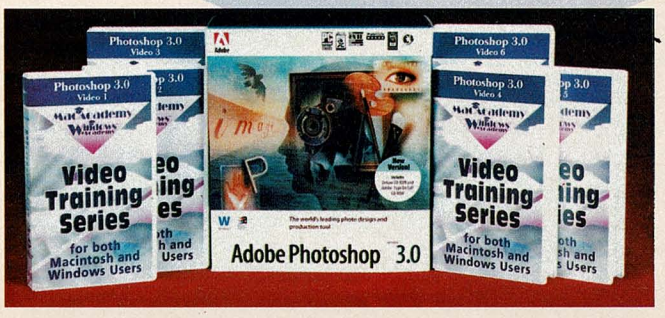

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Macintosh Trouble Shooting	(M)	3 videos
MacProject Pro 1.5	(M)	4 videos
Macromind Director 4.0	(X)	4 videos
MacTools Pro	(M)	1 video
MacWrite Pro 1.0	(M)	3 videos
MicrosoftWorks 4.0	(M)	5 videos
MiniCad 5.0	(M)	2 videos
NetWorking System 7	(M)	1 video
Norton Utilities	(M)	1 video
Now Contact/Up to Date	(M)	1 video
PageMaker 5.0	(X)	6 videos
Painter 3.0	(X)	4 videos
Persuasion 3.0	(M)	3 videos
Photoshop 3.0	(X)	6 videos
Powerpoint 4.0	(X)	2 videos
Premiere 3.0	(M)	3 videos
QuarkXpress 3.3	(X)	4 videos
QuickTime 1.6	(M)	1 video
Superpaint 3.5	(M)	3 videos
System 7	(M)	1 video
The Powerbook	(M)	2 videos
Utilities for System 7	(M)	1 video
Windows Basics 3.1	(W)	4 videos
Word 6.0	(X)	6 videos
WordPerfect 3.0 Mac	(M)	4 videos
WordPerfect 6.0 Windows	(W)	6 videos

Earlier Versions available.

Video Codes: (M) Macintosh (W) Windows
(X) Cross Platform - both Mac and Windows users.

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Logic 2.5

MACFORMAT Classic

Sequencers just get more powerful with every update. Ian Waugh looks at *Logic 2.5*, the latest incarnation of one of the most powerful sequencers on the Mac.

The challenge to see what new and exciting features they can put in their programs seems to drive music software developers ever onwards. *Logic* has always been an innovative sequencer. On the surface it works like most other sequencers, but it houses a wealth of features, many of which are unique.

The program is copy-protected with a dongle. The dongle plugs in anywhere on the Apple Desktop Bus, and the software checks for it – if the dongle isn't there, the program won't run. Music software developers are particularly paranoid about piracy.

ORIGINS

The Hyper editor began life in *Notator* on the Atari ST, and proved so popular that it was included in *Logic*, which was known in its first incarnation as *Notator Logic*.

Lone arranger

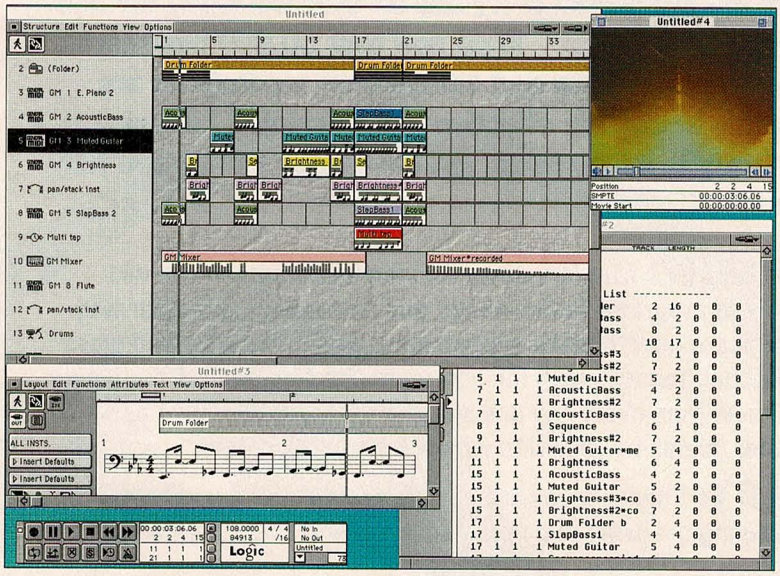
The main work area is the Arrange window. Tracks appear down the left and are usually assigned to a specific MIDI channel and program number which will route music on that track to a specific sound.

Music sequences are recorded and appear on the screen as horizontal bars. They can be dragged around the screen, cut, copied, pasted, divided, glued and otherwise edited in myriad ways to produce a finished song. This is much the same principle as used by other major sequencers such as *Cubase* and *Vision* (see page 102). It's an intuitive way of working and the arrangement process is extremely flexible.

Each sequence has a list of parameters such as transpose, velocity and delay. You can also quantise a sequence to pull out-of-time notes back into line. These functions take place during playback only, and they don't permanently alter the data, so you can easily experiment with different settings without losing your original recording.

MIDI

Musical Instrument Digital Interface. Essentially a communications protocol to enable music information to be passed between various devices.



Logic offers an enormous range of features compared to most sequencers. For example, you can synchronise music to a QuickTime movie and the timing positions then appear under the movie.

Loopy

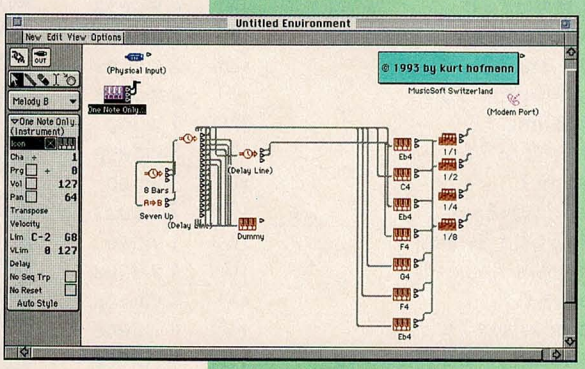
Working with loops is extremely easy. Set a sequence to loop and it will automatically do so until it encounters another sequence on the same track.

If you have created part of a song using several tracks, you can wrap them up in a folder and manipulate the whole section as if it were a single sequence, which is particularly useful with drum patterns that might have been recorded on several drum tracks. If you want to, you can put folders within folders within folders...

Ed master

Logic has several editors. The Matrix editor is *Logic's* name for the piano roll

ENVIRONMENTALLY FRIENDLY



Part of the Environment page, which plays the melody to *Popcorn*, produced using only one note!

Logic's Environment window is one of its most powerful features. It looks difficult to use at first, but version 2.5 has made it easier to work with and you can easily adapt some of the existing environments to your own use.

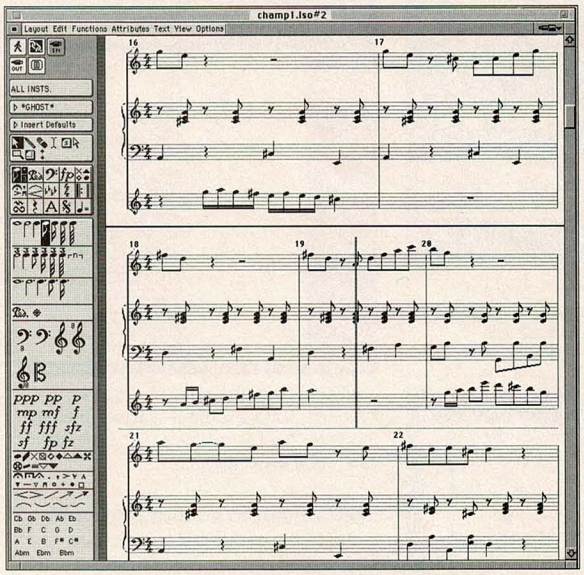
The Environment is a virtual representation of your MIDI system. You create instrument objects which have a MIDI channel and a program change number and are routed to a MIDI output, then select any sound in the Arrange window, using a flip menu.

There are special Multi instrument objects for use with multi-timbral instruments, such as General MIDI modules. Mapped instruments take an incoming note and map it to any other note. They can be protected against transposition and are particularly good for use with drum tracks.

There is also a range of tools that can generate and process MIDI data. These include faders, an arpeggiator, a delay line, a voice limiter to limit the number of simultaneous notes played, a channel splitter to route data on different channels to different outputs, and a chord memoriser, which can make a single note play a chord.

The tools are inserted in the MIDI chain of events by joining them with virtual jack plugs. So you could create an arpeggiator object and plug it between the sequencer and an instrument – when the sequencer generates a note, it then runs through the arpeggiator and plays a cascade of notes.

This power is demonstrated by a file called One Note. It plays the tune *Popcorn* using just one note processed with the Environment tools. Amazing!



One of the files provided includes a General MIDI Mixer created in the Environment window, which you can copy into your own songs.

Logic offers very comprehensive score facilities, with all the music symbols and edit facilities you need to produce a professional-looking score.

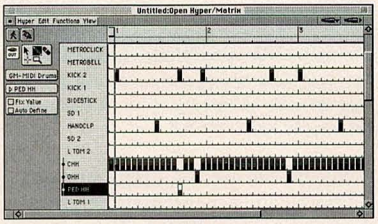
or grid editor, where notes appear as bars on a grid against a piano keyboard on the left of the window, which indicates the pitch. The longer the bar, the longer the note duration.

Velocities are represented by horizontal lines inside the notes and can be edited with the crosshair tool. The usual cut, copy and paste functions are available, and you can drag the notes freely around the grid.

The Event editor shows every type of MIDI data in a list, or you can elect to filter out unwanted data such as notes, controllers, aftertouch, System Exclusive messages from the display, to concentrate on the specific type of event you want to edit.

Top score

The Score editor shows notes in traditional notation, and uses an 'intelligent' algorithm for interpreting the MIDI data so that it looks like a score rather than a spider's web. Score styles, text styles and instrument sets give you full control over the layout, and *Logic* supports a whole range of music symbols, including dynamics, slurs, text and articulation marks. Lots of powerful editing features, such as exploded polyphony, make the score look correct when you enter more than one voice on one stave, and you can create tuplets with values of up to 64. Using mapped instruments, you can make drum notes appear anywhere on the stave, and you can select any of 14 note heads. Note attributes enable you to create grace notes, make enharmonic shifts and finely adjust note positions. This really is a truly powerful editor.



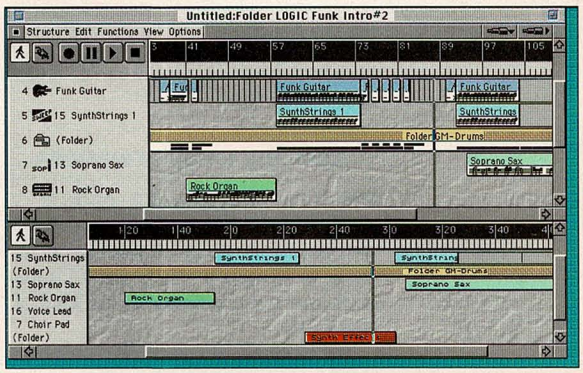
The Hyper editor can edit controllers and single pitches. Here it is set up as a General MIDI drum editor, with the grouped hi hats in 'hi hat' mode.

Hyper hyper

The Hyper editor is used to edit single notes and controller data. The display looks similar to graphic controller editors in other sequencers, but here each row can be a different note or controller. You can use the Hyper editor to adjust the velocities of notes, draw in volume curves, pan changes, modulation or pitch bend data.

The single note feature is useful for editing and creating drum tracks, although it's not as intuitive as the kind of dedicated drum editor that sequencers such as *Cubase* have. A hi hat mode ensures that two events in selected groups don't play at the same time, and you can use it to create your own authentic hi hat patterns. For example, they might contain open, closed and pedal hi hat sounds which,

Continued on next page

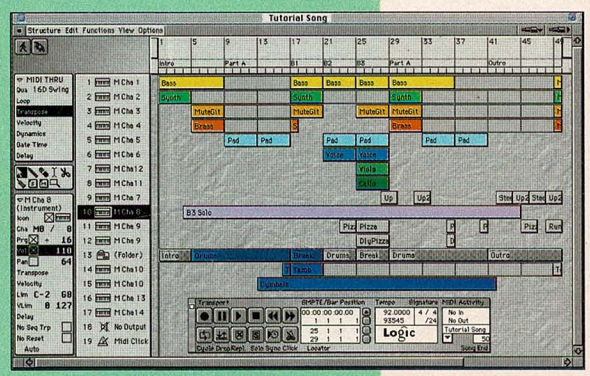


You can open as many windows as you like. Here two Arrange windows are open, each of which is using a different level of zoom.

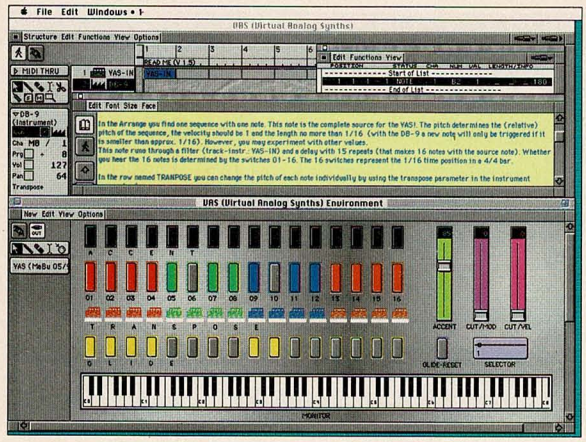
ALL THESE FEATURES AND MORE!

Logic 2.5 has a host of powerful, interesting and spiffing features. Here are just some of them:

- *Logic* can not only load Standard MIDI Files but also read Songs, Arrangements and Mixer Maps created by its rival sequencer, *Cubase*.
- It can automatically access devices plugged into your Mac, such as Digidesign's SampleCell.
- You can record without the metronome and use Reclock Song to divide the sequence into bars and add tempo information afterwards.
- You can simultaneously play back two music lines with different tempos.
- You can add colour to sequences and objects in the Environment window.
- The Transformer can be used in real-time, enabling you to use the Modulation wheel, for example, to change note velocity.
- You can synchronise a song to a QuickTime movie.
- Giant SMPTE and Bar displays enable you to see the time at the other end of the studio.
- You can create custom grooves or rhythmic quantisation settings based on your own recordings, and apply them to other sequences.
- You can create your own music processing tools in the Environment.
- When you save a song, *Logic* can create a backup of the previously saved version first. You can have up to 100 backups!



Logic's Arrange window. You can even colour the sequences, to make it easier to keep track of the music sections.



The VAS (Virtual Analogue Synths) created in the Environment enables you to treat any instrument like an analogue synthesiser.

on a real drum kit, would never sound at the same time.

Amazing transformations

One of the most powerful editors is the Transform window, although it's also one of the most complex. A wide range of functions enable you to transform and process virtually any kind of MIDI data.

For example, it can double or halve the durations of notes in a sequence. It can modify or scale velocity, and limit it to reduce the difference between the highest and lowest values like an audio compressor. Also, it can 'humanise' a step-time recording by adding small random values to notes. It can reverse a sequence of notes, and invert the pitch by rotating them around a certain pitch.

VERSATILITY

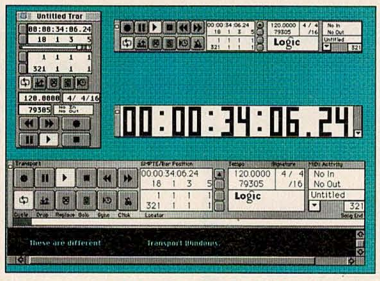
Logic is also available on the Atari ST and the PC, and you can freely exchange *Logic* song files between all three computers.

On time

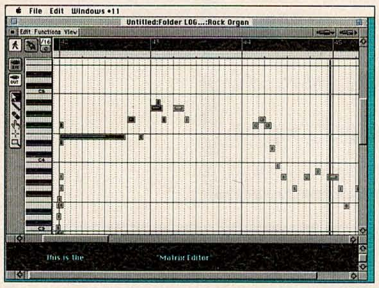
The tempo functions have been updated to include tempo scaling, tempo curves, tempo stretching and thinning, plus a random tempo function. You can record tempo changes in real-time and view them either in a list or graphically. You can manually deactivate the tempo track, which is useful if you need to record another part.

QUANTISING

The process of pushing and pulling notes onto certain divisions of the beat to correct sloppy timing.



There are many different ways to display the Transport controls, including this giant display, presumably for short-sighted musicians.



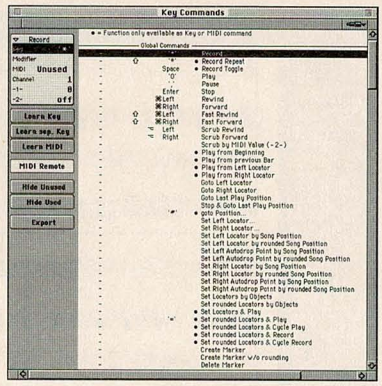
The Matrix editor shows notes as bars on a grid. They can easily be edited, lengthened, shortened and dragged across the grid.

Needless to say, *Logic* fully supports all timing and synchronisation standards, including MIDI clock, MIDI Machine Control (MMC) and SMPTE synchronisation, so you can link it to other sequencers, a reel-to-reel recorder or a VCR.

Key player

You can activate nearly every function in *Logic* using either a key command or a MIDI message – and if you don't like a particular keystroke you can change it easily. If you work a lot at a music keyboard, it's worth using the MIDI commands even for basic transport control functions – you'll be able to control the sequencer without moving from your seat.

One facet of *Logic* that may initially strike you as strange is its scarcity of menus. The program uses local menus, which are specific to the currently



The Key Commands window shows all the keystrokes that are currently assigned to *Logic's* functions. You can also make the system 'learn' new sets of keystrokes.

open window. This means you can only access functions which that window supports and you don't see lists of greyed-out items.

You can have as many windows open at once as your memory allows, and you can even open several windows of the same type, showing different parts of the same score. The layouts are automatically saved as screensets, which you can recall at the press of a key, and the Catch and Link buttons ensure that the windows always show the part of the song you're working on, or the part that is currently playing.

The most complex part of *Logic 2.5* is setting up the Environment, but the program's basic sequencing functions are easy to use. Read the manual or you'll miss out on some incredible processing and arranging features.

This latest upgrade makes *Logic 2.5* one of the most powerful sequencers on any computer platform. It's state of the art and should satisfy even the most demanding power user. **MF**

THE MAIN CONTENDERS

The UK's two most popular sequencers are *Logic* and *Cubase*. *Cubase 2.5* (£399 from Harman on 0181 207 5050) doesn't have an Environment page, and is easier to set up and go, but you miss out on some powerful facilities. *Cubase* also doesn't have an equivalent Hyper editor, but it does offer a Drum pattern editor and a very interesting music manipulation feature, called the Interactive Phrase Synthesiser. For all this, plus some sophisticated score facilities, check out *Cubase Score* (£499).

Other top-end sequencers include Opcode's *Vision 2* (£349.95 from MCMXCIX on 0171 723 7221), which has lots of features and comes with *Galaxy Librarian*. It can take a while to get everything working together, and operation is not as intuitive as it might be, but it's a powerful and well-integrated system.

Mark of the Unicorn's *Performer 5* (£349 from MusicTrack on 01462 733310) has a thorough pedigree but is now getting a bit long in the tooth. Version 6 is about to be released, although we have no scheduled date, and it should offer some serious competition for other sequencers.

Finally, don't ignore Passport's *MasterTracks Pro 6* (£149 from Arbiter on 0181 202 1199). Although it does not offer all the bells and whistles of the other programs, it's cheap, easy to use and is well up to doing a perfectly professional job.

LOGIC 2.5

Price: £399. **Out:** now.
Requires: Mac Plus or better, System 6.04, 4Mb of RAM (but this will crawl!), a MIDI interface. LC or better and 8Mb of RAM preferred, large monitor a bonus.
Contact: Sound Technology, 01462 480000.

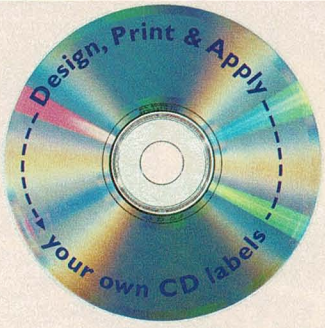
FEATURES 93%
Many powerful, sophisticated and innovative features which should be enough to satisfy the most demanding user.

EASE OF USE 78%
Less experienced users must read the manual. You don't learn how to master power like this overnight.

DOCUMENTATION 89%
Comprehensive, humour-tinged, ring-bound manual, but no on-screen help.

VALUE FOR MONEY 92%
One of the most innovative sequencers on the market at a normal, professional sequencer price.

MACFORMAT RATING 92%



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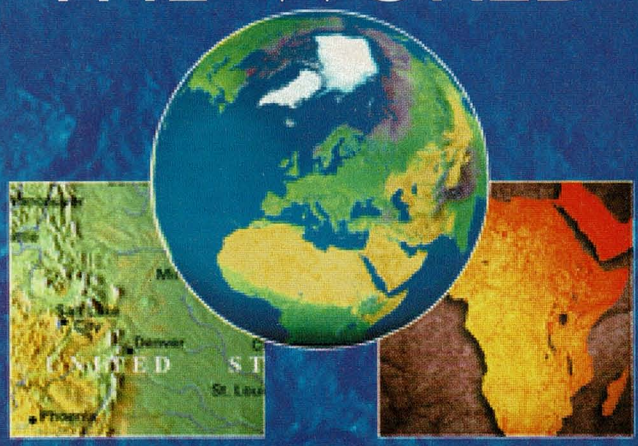

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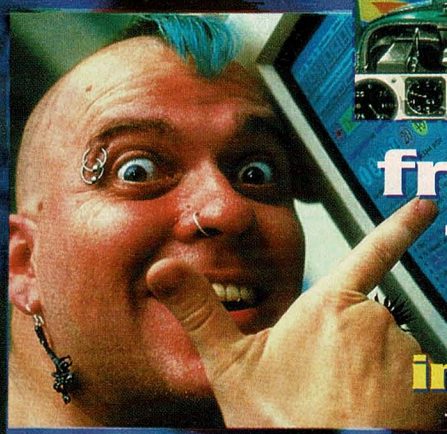

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PVC VIDEO

The Star Trek Omnipedia

This reference disc's continuing mission: to seek out new trivia and fresh levels of obsessiveness – to boldly go where no CD-ROM has gone before.

The fanciful speculation of writers like Arthur C Clarke gave real-world scientists the inspiration to create the technology that shapes us today. Gene Roddenberry's *Star Trek* has been pretty influential itself: the first space shuttle was named the Enterprise – and how would Apple's handheld Newton computer have turned out if it wasn't for Spock's tricorder?

Now genuinely futuristic technology gives you a fresh look at the series in *The Star Trek Omnipedia*, a CD-ROM based on the successful book. It treats *Star Trek* as historians might regard the 18th century, with an exhaustive bible of the people, places and tribbles that flesh out this imaginary future.

Right from the start, you feel like you're using a Starship Enterprise console. Streamlined graphics and the beeps that punctuate the computerised voice are reassuringly familiar if you've seen any episodes. There's a massive index of *Trek* concepts and characters, from the likes of James T Kirk and Jean-Luc Picard down to obscure alien races' quantum particles.

An episode guide takes you from the original pilot programme, with Captain Pike preceding Kirk, up through *The Next Generation* and into *Deep Space Nine* (just started on BBC2). Films are also covered, although the more recent events depicted in the *Generations* movie and the *Voyager* series are absent. Publishers Simon and Schuster promise regular editions to keep the *Trek* universe up-to-date – a commitment that shows who they believe will be buying this disc.

The Star Trek Omnipedia is not a casual piece of entertainment to flick through and forget. It's as serious about its subject as any factual reference book, delighting in the minute detail as much as the epic. You'll need to be passionate about *Trek* to enjoy this disc, because it's not something you play with, it's something you *use*.

You can click on any word that's in bold to go to an entry on that subject, and there's a rather clunky search facility too. You can even follow a minor supporting character around different episodes, building up an idea of how he fits into the mythology.

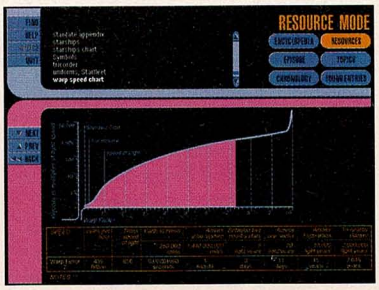
The *Omnipedia* exploits the *Star Trek* legend to the full – in particular with this inventive gimmick: your Mac can now recognise speech, just like devices on the Enterprise, so you can plug in a PlainTalk microphone and speak commands to navigate around the pages.

It would be lovely if the system were as responsive to you as it is to Lieutenant Uhura, but our primitive technology fails us. You have to buy the PlainTalk microphone and extra software before you can set it up, and the program's documentation does little to help. It does a better job of not letting you get your hopes up too much when you do start to speak to your Mac. It's hardly a flawless system, but with practice and patience you could make believe you're on the bridge with Acting Ensign Wesley Crusher at your side. **RICHARD HILL**

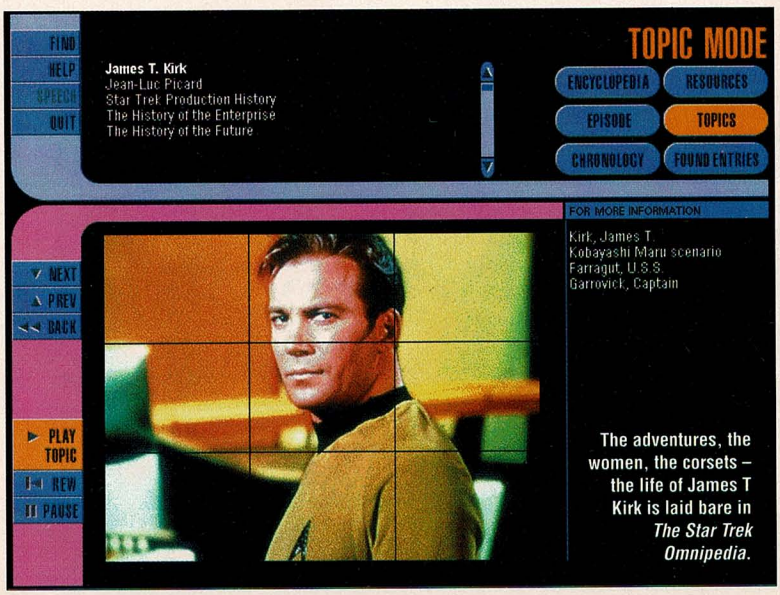
PLAIN TALKING

The PlainTalk Software Kit is available from Apple dealers for around £33. If you have any difficulties obtaining it, the part number is M2844ZA.

Speech recognition comes to the 20th century – well, limps would be a more accurate description. You'll need to persevere to get it working properly.



The technical details that make *Star Trek* work are revealed – in this particular instance, if you move the chart setting the table changes.



The adventures, the women, the corsets – the life of James T Kirk is laid bare in *The Star Trek Omnipedia*.

There's an entry for nearly everything you've seen in a *Trek* episode. There's even a complete list of Starbases included.

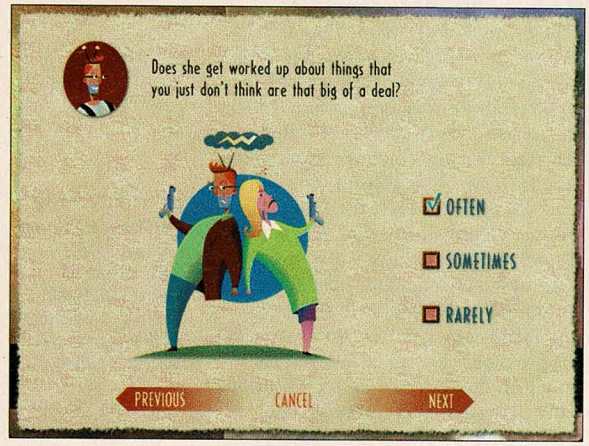
STAR TREK OMNIPEDIA

Price: £59.99. **Out:** now.
Requires: LCIII or better, 8Mb of RAM, System 7.0.1 or later, 13-inch colour monitor, double-speed CD-ROM drive. Speech recognition requires a PowerMac 6100 or better or a Quadra AV, with a PlainTalk microphone and software.
Contact: ABLAC Learning Works on 01626 332233.

MACFORMAT RATING 69%

Men are from Mars, Women are from Venus

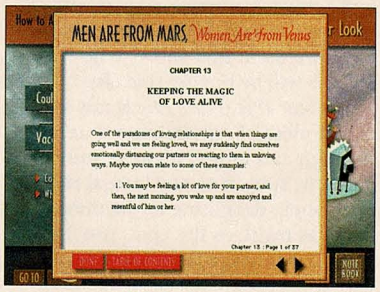
The best-selling book that attempts to narrow the gulf between men and women is now a CD-ROM. But does the new format help you understand the opposite sex?



There's a questionnaire for both of you to complete, but not enough is done with the information you provide.

It was perhaps the great Norm Petersen from *Cheers* who best expressed the stereotypical male view on women – 'Can't live with 'em... pass the beer nuts.' And many women seem to have equal difficulty understanding why men love footie so much, punch each other for fun or leave the toilet seat up. Are the two sexes poles apart, or could the differences be reconciled if they learned to speak each other's languages?

John Gray's *Men are from Mars...* tries to express in simple terms where relationships between couples begin to fracture and to help you find ways to patch them up. His theory is that men and women are fundamentally different, with different emotional needs and approaches to solving problems.



You get a copy of the book as well as all of the text on the CD-ROM – but wouldn't just the one version have been enough?

In the book men are portrayed as aliens from the warlike planet Mars, and women as creatures from Venus, planet of love. Subtlety is not in evidence as Gray tells the story of the two species coming together striving, with difficulty, to understand each other. Through the experience of the alien races, Gray believes, you can 'keep your partner's love tank full'.

This package combines a book and CD-ROM, but don't expect the disc to have been designed to complement the book. The incentive for using the disc is the questionnaire: a set of multiple choice posers like 'Do you think you get the blame for her unhappiness or disappointment?' This assesses the strength of your relationship, and highlights any potential minefields.

But virtually nothing is done with this information. One or several of six sections are highlighted to recommend them to you, but the content of each section doesn't change, no matter how you answer the quiz. A huge opportunity to tailor the disc specifically for your needs has been passed up, making the CD-ROM little more than a version of the book with pictures.

The sections consist of video clips that depict couple Michael and Megan as they try to make their love last. Showing a right and a wrong way to deal with each other's feelings, the clips present a straightforward guide to getting along. You can move away from the video and look up a relevant passage from the book any time you want, or enter your thoughts and feelings into a computer notebook, but you can't print out the notebook's contents from the program – one demonstration of the lack of thought that's gone into this. You should expect a lot more from a disc labelled as an interactive workshop.

Despite the addition of extra video sections, like the cloying part where couples describe their success after using the book, the CD-ROM of *Men are from Mars...* is redundant once you have the book.

RICHARD HILL

MEN ARE FROM MARS...

Price: £39.99. **Out:** now.
Requires: Mac IIci or better, 4Mb of RAM, System 7.0, 13-inch colour monitor, double-speed CD-ROM drive.
Contact: HarperCollins Interactive on 0181 741 7070.

MACFORMAT RATING 40%

SCORING POINTS WITH THE OPPOSITE SEX

John Gray, PhD, explains how you can make your relationship work, while utilising the power of multimedia.

The Gift
Another Look
Tips on Scoring Points
When a man is in a negative state... treat him like a passing tornado and lie low.
GO TO
NOTE BOOK

After completing the questionnaire, you have a choice of video sections to choose from. John Gray appears to introduce each bit.

The more kitsch side of relationships is explored in a set of movies from the 1950s and '60s – click here to see one.

This icon returns to the page you were last on.

Want to explore another part of the disc entirely? Click here.

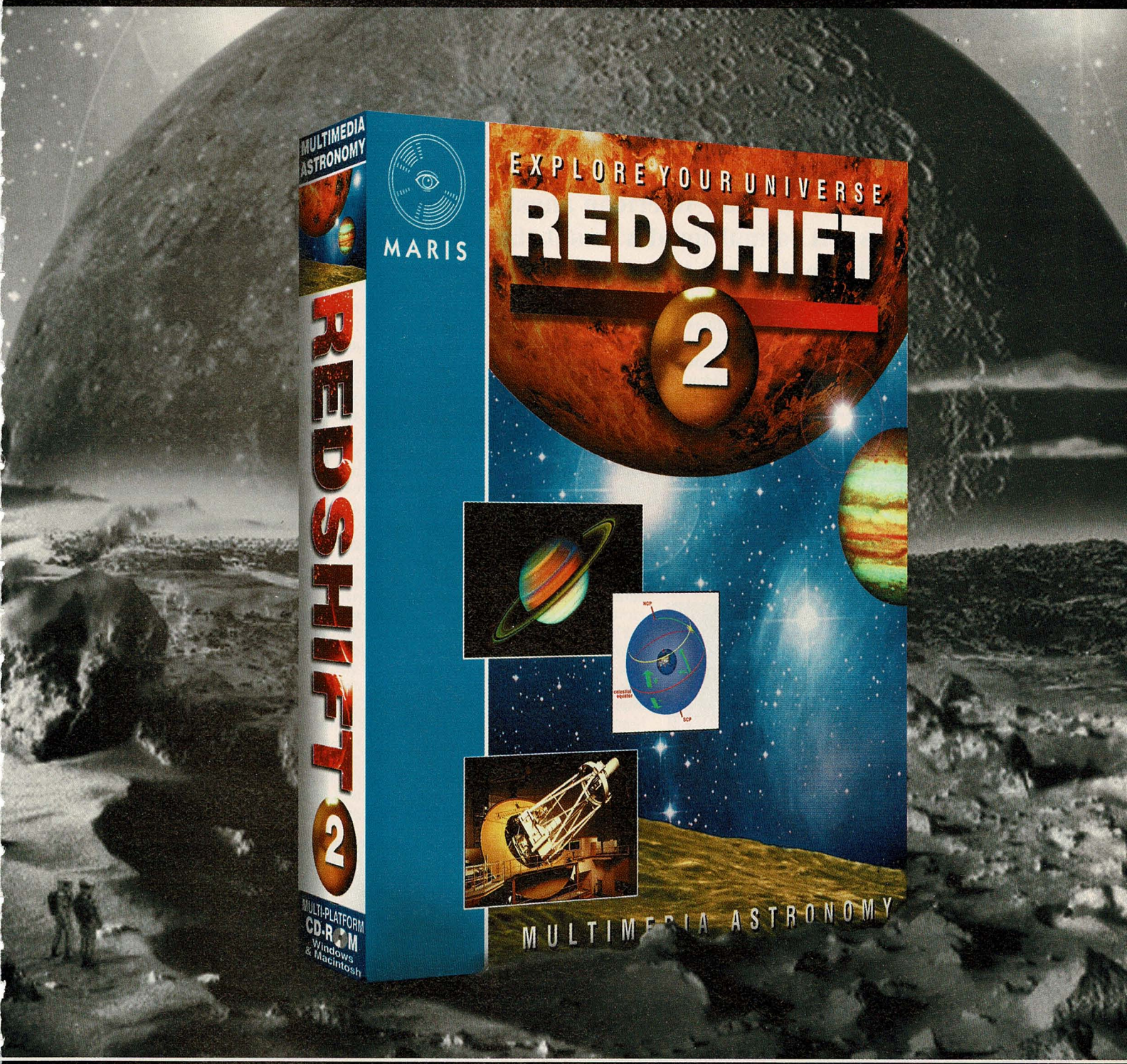
Another Look gives you more video clips, this time of John Gray telling a studio audience his ideas and philosophy.

The two main videos show the wrong way to relate to your partner and the right way, in scenes with Michael and Megan.

Click on this teaser for the book to see a passage that's relevant for this section.

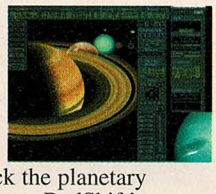
The notebook enables you to jot down your thoughts as you go through the CD-ROM – but there's no way to print them out.

EXPLORE YOUR UNIVERSE



THE SECOND ENCOUNTER

Journey beyond human experience



Take a trip through the infinite world of space. Visit the mysterious moons of Saturn - ride Halley's Comet as it zooms towards Earth - track the planetary systems as they orbit the Sun. RedShift's scientifically accurate 3D simulation of the Solar System takes you on a voyage of unparalleled realism.

Unlock astronomy's secrets

Breathtaking narrated 3D animated tours let you watch the birth of a star or stand by as our Solar System is formed - over 30 minutes of original movie-quality animation reveals the wonders of our Universe.

Travel through time-over 15,000 years

Real time celestial mechanics software plots the positions of 250,000 stars - travel back in time to view the night sky seen by the Pharaohs of ancient Egypt - or simulate eclipses recorded in Ancient Chinese manuscripts.

View incredible images of space

Browse more than 700 stunning astro-photographs - watch video of man's first journeys into space as they actually happened - follow hypertext links to more than 2,000 entries in Penguin's richly illustrated Dictionary of Astronomy.

DUAL PLATFORM CD-ROM for Windows, Windows 95, Macintosh & Power Macintosh

Distributed by MAXIS 18 - 20 St Johns Street, London. EC1M 4AY TEL: 0171 4902333

For more information contact Maris Multimedia on the World Wide Web at
http://www.maris.com/maris/ MARIS

MULTIMEDIA ASTRONOMY

Passage to Vietnam

Pigeon-holed as a setting for American angst on the silver screen, it's left to multimedia to set the record straight for the 'little dragon' known as Vietnam.

THE QUEBE

Passage to Vietnam's useful and rather nifty interface can also be found spinning away on Adhoc's interactive magazine, *Just Think.*

PULITZER PRIZE

Jay Dickman hasn't just documented Vietnam. His harrowing photos from El Salvador for *Life* won him the Pulitzer prize.

Proverbs. Comforting, safe... but as Vietnam's dealings with mass media reveal, they're often wrong. A picture tells a 1,000 stories? Not if you look at the one-dimensional Vietnam movies churned out by the Hollywood conveyor belt. The camera never lies? Stanley Kubrick recreates a rocked Hanoi in London's Docklands for his blustering *Full Metal Jacket.* Unlike El Salvador *(Salvador)* and Cambodia *(The Killing Fields),* Vietnam can't rely on the silver screen to tell the full story of its past or future. Enter multimedia.

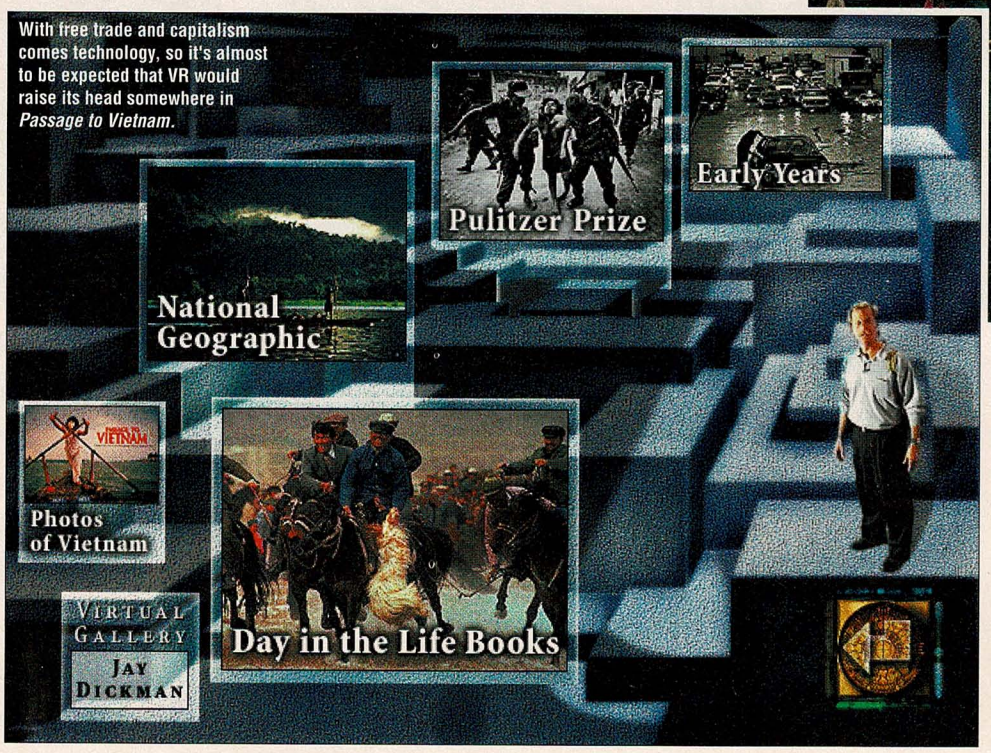
Passage to Vietnam is an interactive assignment for the backseat photographer in all of us. Based on the book of the same name, it takes over 350 photos (twice the number that appear in the printed version) from 200 top photographers and hangs them on an interactive framework. Spinning the Quebe interface – a 3D cube that you rotate with your mouse to reveal six menu faces – brings up a variety of options, enabling you to access *Passage's* immaculately-presented database via region, by photographer or even as part of a themed Subject Loop. If you then like what you see, hotspots effortlessly take you to related themes, virtual galleries or photographers.

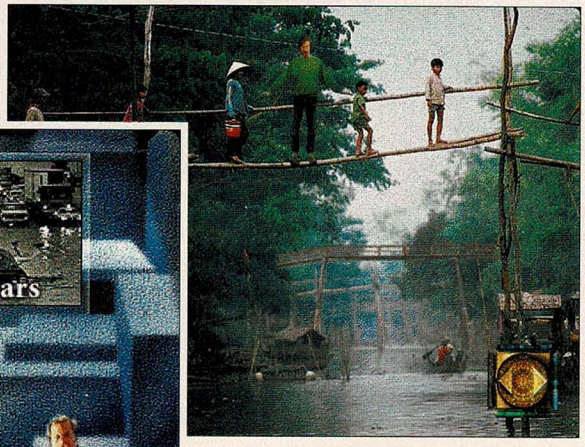
The database is impressive – photography, film, audio and interview – and this is not a case of quantity over quality. *Passage's* ease of use is as impressive as its interface design. Hotspots usually shout out of the standard multimedia CD-ROM like a demanding child – 'Look at me! I can take you to another screen! Me!' – but *Passage* leads you subtly. Film and Audio icons are there to click, but the media are all combined effectively.

Passage's host invites you to turn on the light box and view five potential cover images. Clicking on each calls up an on-screen interview between Guy Cooper *(Newsweek's* Picture Editor) and Michele Stephenson *(Time's* Director of Photography), both agreeing to disagree over your choice of alternate cover image for *Passage to Vietnam.* It's educational, opinionated and perfectly blends media in its mission to explain and inform.

Given the large amount of photojournalism included, *Passage* naturally brushes with politics. Atrocities are covered (including El Salvador's mass graves) but fingers are rarely pointed. One explanation is that this is a photographic journey, seeking to document rather than comment. Another explanation can be found on the Sponsors page – Nestle, Apple, Motorola and Kodak are just some of the big names featured. It's plain to see the connection between these and a Vietnam that, after 25 years, is opening its doors to free trade. There's truth in both of the above but the conspiracy theories must remain firmly in the wings. Where harsh theory and limp cinema have failed, *Passage to Vietnam* shows a nation both developing and beautiful, and for that it more than deserves its rating. **MIKE GOLDSMITH**

Scrolling over three screens, this detailed map of Vietnam divides the photographers' work up geographically.


With free trade and capitalism comes technology, so it's almost to be expected that VR would raise its head somewhere in *Passage to Vietnam.*
Pulitzer Prize
Early Years
National Geographic
Photos of Vietnam
Day in the Life Books
VIRTUAL GALLERY
JAY DICKMAN



More Slippery Stick than Golden Gate, *Passage To Vietnam's* host can balance on this Monkey Bridge through the miracle of multimedia.

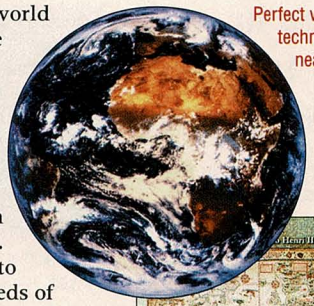
PASSAGE TO VIETNAM

Price: $39.95. **Out:** now.
Requires: Quadra or better, 5Mb of free RAM (8Mb recommended), System 7.0 or later, 256-colour, 13-inch monitor.
Contact: Against All Odds on 001 415 331 6300 or e-mail RickSmolan@aol.com

MACFORMAT RATING 88%

The Image of the World

The history of the world's maps is a history of ourselves. From badly scrawled drawings to satellites in space, this is a tale of discovery through science.



Perfect world? The advances in technology enable today's near-perfect photography.

Our image of the world in which we live had humble beginnings. From the tiny mappae mundi of the 13th century to the advanced satellite photographs of the modern age, perception has changed beyond belief. Africa, for instance, seems to have moved several hundreds of miles from its early location in the South Pacific, while America has doubled in size. If, as this CD suggests, 'the world map allows us to locate ourselves in space as the calendar does in time', life seven centuries ago must have been very confusing.

As part of the British Museum's collection, *The Image of the World* charts the evolution of our self-image from the classical to the ultra-modern era with a pictorial and audio tour through ten of the world's most historic maps. The emphasis here is on education. Each map is wonderfully captured and comes with a detailed voice-over explaining the origins and theories behind the images. The earliest attempts are the most interesting. Dragons spit from choppy seas, mermaids swim alongside and religious significance is dotted everywhere. All very pretty, all very creative, but you wonder how the hell Columbus ever got out of Portsmouth harbour.

History, naturally, walks hand in hand with cartography and much of the commentary about each map deals with the political and social standing of the world at the time. The influence of Christianity, the expansion and collapse of the British empire and the weight of technology have been the three major shifting points and all are explained in brief, easy-to-grasp language. Concise, but a little too fleeting a glance – the entire history of the world map skips by in about an hour. Hardly comprehensive. There's little mention of ecology, atmospheric wriggling or, indeed, the arrival of new lands, those vertically-uprising volcanos we call countries.

The images, though, are wonderful. Sometimes dense and confusing, but always interesting. A simple, if rather flat, interface makes it easy to use – point, click, sit back and wait. The problem here is not one of style but one of limitation. You can click on a detail for more information on a particular area, but this trick is limited to four or five times a map. The low price clearly has much to do with this, and those with A-level Geography should look elsewhere.

Note the dangerous looking dragon-monster swimming in the choppy sea.

The 12th century mappa mundi. Symbolic and spiritual, but wrong.

British imperialism is all over 18th century maps of the world like a rash.

Despite its limited ambitions, *Images of the World* remains a classy little CD-ROM – informative, enlightening and booming with school-masterly authority. As an educational tool for children, it's perfect, but as a definitive guide, it falls well short. Not everything needs to be a sprawling encyclopedia, granted, but in a world now bursting with information, a peek through an open door leaves you contented but not quite fulfilled.

GIL GILLESPIE

Mapping down the ages. The stages of the evolution of maps are easy to spot.

IMAGE OF THE WORLD

Price: £14.95. **Out:** now.
Requires: LCIII or better, 4Mb of RAM, System 7 or later, colour monitor, double-speed CD-ROM drive.
Contact: The British Library Publishing Office on 0171 412 7704.

MACFORMAT RATING 70%

MISGUIDED?

In the earliest of maps, Christ is pictured holding the world, Jerusalem is its centre and East is at the top. No sense of direction, those medieval folk.

FAITH IN SCIENCE

The map of the world today is photographic. Future scientists may conclude that by the end of the 20th century we no longer had any beliefs we wished to express through our maps, except our belief in science.

An Introduction to Archaeology

If the thought of spending your days knee-deep in history leaves you cold, here's an opportunity to exhume the past and keep your fingernails clean.

Picture the scene. An archaeological dig, somewhere in France. Rusty soil flies everywhere but everything is normal. Static, slow, careful. Then, suddenly, human remains are discovered. Who is it? What is it? And was a stale tuna sandwich responsible for its demise? This novel CD-ROM introduces the uninitiated to the world of digging up the past. It's a game, a fun-packed tour of a barely recognised profession, and, let's hope, an archaeological, educational, career-inducing, puzzle-solving spade in the ditch of all things unearthable.

A cross between *Jewel In The Nile* and *Cluedo*, this is an adventure in ancient sleuthdom. Containing five missions, The Archaeological Detective (to give it its more appropriate name) gives you the opportunity to get to the bottom of this gruesome human discovery. Expert opinion slides by on video, pin-the-tail-on-the-corpse type games give clues, and ancient documents lead you along paths you didn't expect to tread. Your role in the 'game' is as a desktop archaeologist, clean of hand and free of trowel.

DIGGING THE SCENE

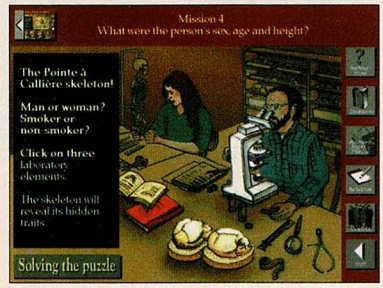
The terms used are often perplexing. Luckily, a dictionary is included to explain some of the in-house terminology. Being a French product, the archaeologists in the video-clips are French speaking. A voice-over translates.

Genre straddling

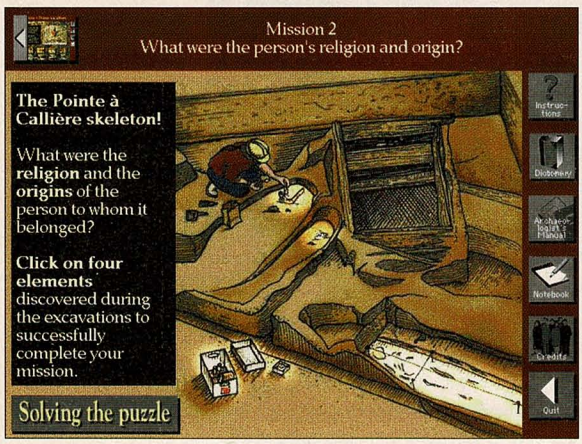
While it must be applauded for its attempt to make an obscure subject appealing, *An Introduction to Archaeology* ends up confusing rather than straddling two distinct genres. It's neither a puzzle game nor an educational experience, but a bit of both. The main problem is that everything's just too easy. Unlimited stabs at the right answer hardly encourage application to the task, but give an incorrect response and you'll hear an 'oh-oh-wrong-answer' noise, and get your chance to try again. Trial and error order the gameplay like rigid matchsticks. You learn more about dragging and clicking the mouse than about the origin, parenthood and political affiliations of the poor soul who lies at the bottom of the pit.

Everything is neat – sophisticated even. The interface is easy, the animation slick, and the video film authentic. But it just isn't challenging. A deaf, dumb and blind chimpanzee could probably solve the riddle of the skeletal unknown, and this cotton-wool approach suggests only that digging in the dirt is as dull as it sounds, and that the only way to sell the discipline is to wrap its content in a populist blanket.

But despite its drawbacks, *An Introduction to Archaeology* does at least provide a distracting alternative to shooting monsters and multimedia education packages. It keeps you almost hooked to the unfolding dramas of the plot and gives you a basic knowledge of the vast complexities of the archaeologists' trade. A few more obstacles and a little less mothering and this could have been more than just a grisly sideshow. **GIL GILLESPIE**


Mission 4
What were the person's sex, age and height?
The Pointe à Callière skeleton!
Man or woman? Smoker or non-smoker?
Click on three laboratory elements.
The skeleton will reveal its hidden traits.
Solving the puzzle

Magnifying, analysing, quantifying. Click on the highlighted areas to go to the puzzle.


Mission 2
What were the person's religion and origin?
The Pointe à Callière skeleton!
What were the religion and the origins of the person to whom it belonged?
Click on four elements discovered during the excavations to successfully complete your mission.
Solving the puzzle
Instructions
Dictionary
Archaeologist's Manual
Notebook
Credits
Quit

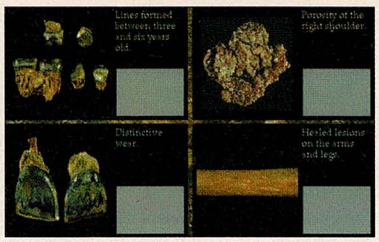
A sleek interface disguises what is essentially an over-simplistic tour of the world of archaeology.

Can this archaeologist's statement help you discover the period of the Pointe à Callière skeleton, and where it was found? Go and have a look in your NOTEBOOK.
Pauline Desjardins, archaeologist
Voice of Victoria Barkoff

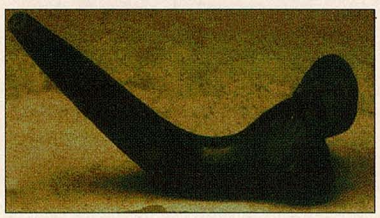
Look! A genuine archaeologist. Pauline Desjardins shares her knowledge with you.

WHO THE HELL?

Although you can determine the age, sex and height of the skeleton, you can never discover the deceased's name. The best you can do is narrow it down to a shortlist of 18.


Lines formed between three and six years old.
Porosity of the right glenoid fossa.
Distinctive wear.
Healed lesions on the arms and legs.

A vital part of the puzzle – fit the right tooth into the gap. Voilà! Another clue solved in seconds.



Now you have to place the piece in the hole. This really is a little easy, isn't it?

AN INTRODUCTION TO ARCHAEOLOGY

Price: £39.99. **Out:** now.
Requires: 6Mb of free RAM, System 7 or later, colour monitor and a CD-ROM drive.
Contact: EMME on 01923 240050.

MACFORMAT RATING 58%

Voyage in Egypt

The sun-drenched cradle of civilisation as we know it, with strange buildings and a curious history. Yes, Birmingham is a weird place, but this is about Egypt.

Now you probably wouldn't count it up there with the atom bomb and the Reliant Robin, but multimedia is an evil invention, really. It gives the go-ahead for any old developer to shove a few pictures on a CD, throw in some digitised speech, charge you about £40 and call it 'an interactive multimedia experience'.

Take *Voyage in Egypt*, for instance (no, please, take it, etc). It's billed as a 'virtual journey through ancient Egypt'. Great! So we get to wander through the temples of Abu Simbel in glorious 3D rendered graphics listening to a guide point out spots of interest, do we? And at any time we can stop, click on something fab and be whisked off on another flight of fantasy?

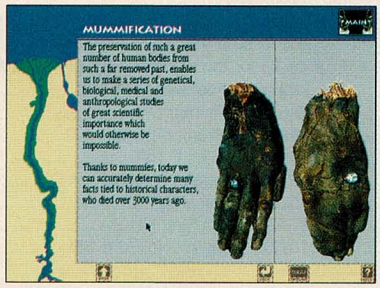
Um, no, not exactly. 'A virtual journey through the nearest encyclopedia' might be a more accurate description, because *Voyage in Egypt* offers nothing more or less than you could dredge up from any decent reference book. It's split into three sections: History offers a timeline from the Neolithic period to the present day; Voyage presents you with a simple map of the Nile, enabling you to travel from the Delta down to Abu Simbel, stopping off at points of interest; while Usage and Custom throws hundreds of background facts at you, concerning the Egyptians' lifestyle.

But this is multimedia; it must offer something more. True, you're treated now and again to some audio commentary from an Egyptian fellow, and there are plenty of hypertext links, but that's about the limit. There's no video at all and just a few animations here and there to liven things up. Apart from that, it's a desert of text and pretty pictures. For instance, in the section that deals with Egyptian musical instruments, wouldn't it be good to hear what they sound like? Just one? But no, another chance missed. And with all that waffling you'd expect some sort of overall index or search facility to be provided, but you'd be disappointed.

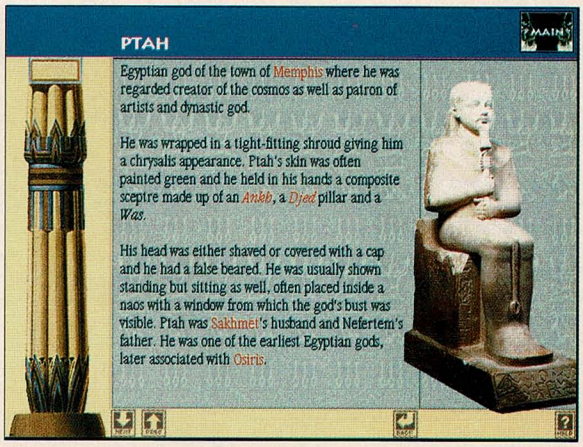
The tone of the explanatory text is couched somewhere between a child's book and the sort of dull, monotonous tour guide voice that you probably came to the CD to get away from in the first place. Take the following shining bit of prose: 'In the summer of 47BC, the two went on a long boat trip up the Nile, as a result, a boy called Caesarion was conceived.' Blimey, travel really was a lot more hazardous in those days. Words are repeated repeated for no apparent reason reason, while spelling mistakes abound, which would be forgiveable if they were long, complicated Egyptian names, but 'beard' isn't really too tricky to spell, is it? These mistakes do nothing for the disc's air of authority.

A simple word describes *Voyage in Egypt* perfectly: dull. It's the sort of CD-ROM that came out when the medium was first introduced: dry, worthy and unimaginative, desperate to please but utterly unappealing.

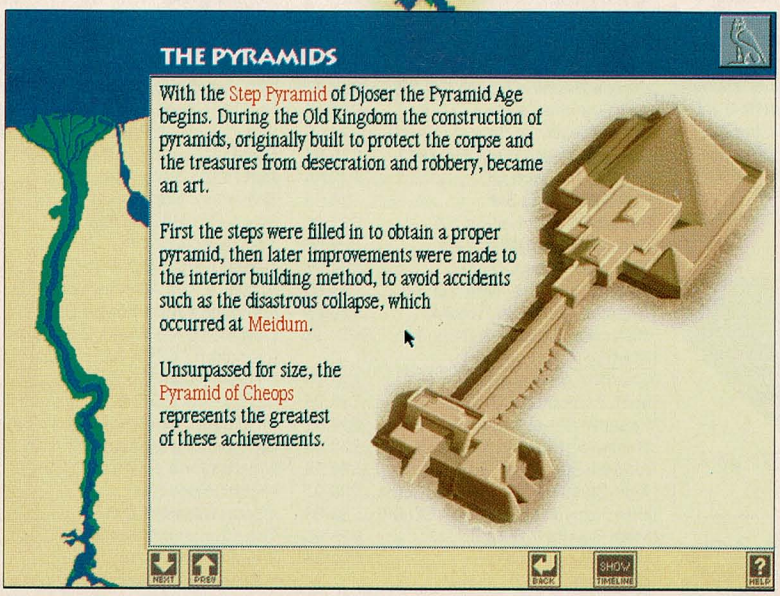
Ed Ricketts


MUMMIFICATION
MAIN
The preservation of such a great number of human bodies from such a far removed past, enables us to make a series of genetical, biological, medical and anthropological studies of great scientific importance which would otherwise be impossible.
Thanks to mummies, today we can accurately determine many facts tied to historical characters, who died over 3000 years ago.

Put your hands together for the practice of mummification. 500 year minimum guarantee.


PTAH
MAIN
Egyptian god of the town of Memphis where he was regarded creator of the cosmos as well as patron of artists and dynastic god.
He was wrapped in a tight-fitting shroud giving him a chrysalis appearance. Ptah's skin was often painted green and he held in his hands a composite sceptre made up of an Anleh, a Djed pillar and a Was.
His head was either shaved or covered with a cap and he had a false beared. He was usually shown standing but sitting as well, often placed inside a naos with a window from which the god's bust was visible. Ptah was Sakhmêt's husband and Nefertem's father. He was one of the earliest Egyptian gods, later associated with Osiris.

Memphis, home of Elvis Presley (pictured above in his later, less successful period).


THE PYRAMIDS
With the Step Pyramid of Djoser the Pyramid Age begins. During the Old Kingdom the construction of pyramids, originally built to protect the corpse and the treasures from desecration and robbery, became an art.
First the steps were filled in to obtain a proper pyramid, then later improvements were made to the interior building method, to avoid accidents such as the disastrous collapse, which occurred at Meidum.
Unsurpassed for size, the Pyramid of Cheops represents the greatest of these achievements.
NEXT
PREV
BACK
SHOW TIMELINE
HELP

The Step pyramid: exercise while you spend the rest of eternity languishing in your grave.

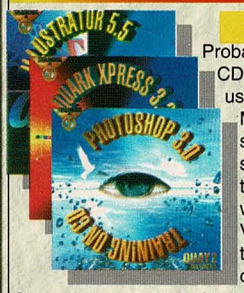
VOYAGE IN EGYPT

Price: £39.99. **Out:** now.
Requires: LC or better, 4Mb of RAM, System 7.0.1, 14-inch colour monitor, CD-ROM drive.
Contact: EMME on 01923 240050.

MACFORMAT RATING 53%

EMERALD Creative Technology

PRODUCTIVITY



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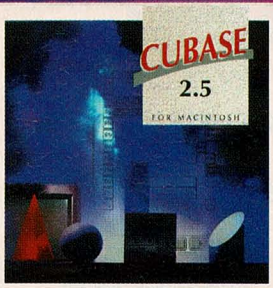

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The Escape of Marvin the Ape

Interactive storybooks aim to educate and amuse, but does Marvin's great escape contain the necessary ingredients to captivate your children?

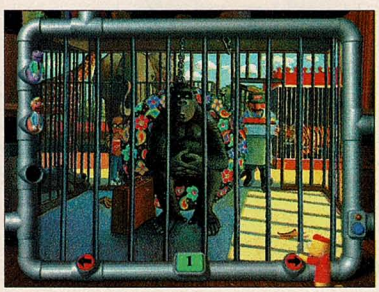
Toast in the video and Ribena down the back of the telly. Examples of domestic violence or a desperate cry for attention? Don't fret, there are alternatives to the electric cattleprod in the eternal battle to keep a young child quiet. For instance, there are interactive storybooks on CD-ROM.

The premise is that children learn as they play. Pitched at three to nine year olds, these CDs provide word recognition learning opportunities, memory tests, keyboard and mouse skills – not to mention the stimulation provided by the whole interactive experience.

The Escape of Marvin the Ape is a leading example of this genre. It consists of an illustrated 14-page narrative story, with every page full of hidden surprises. Your child is encouraged to discover the hotspots contained within, which can be found the length and breadth of each storybook page. Once activated they provide a small snippet of animation, which either adds to the development of the story or more often than not simply entertains. *Marvin* is chock-a-block full of these; there are flying bananas, ostriches, some hapless policemen and even QuickTime video of *King Kong* – the movie. The animations are a joy, full of fun and vitality.

The story pages are full of running jokes. These two police never actually get a sniff of Marvin.

The graphics are uniformly excellent and show an impressive attention to detail, while the occasional animations offer entertaining distraction.



The hip worm in the beret is called Pablo. Here he surveys his handiwork.

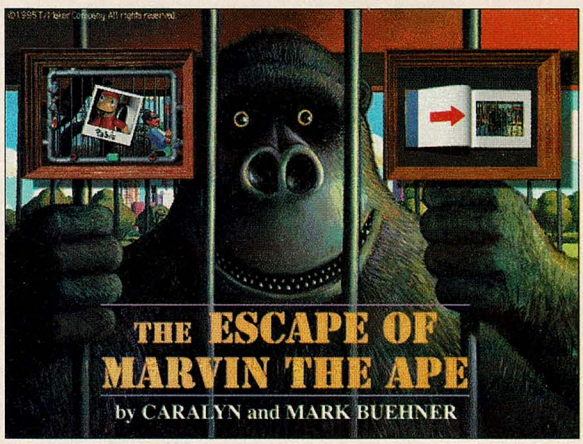
The story is simplicity itself. Marvin is not a happy primate and is struck by wanderlust. He does a runner from the zoo, and, there being no such place as the Big Banana, he hotfoots it to New York City. To further the entertainment, the story is facilitated by three bookworms, Albert, Wendy and Pablo – a nutty inventor, an English busybody and a beatnik 'wormdaddy'. Together they add to the fun and to the educational value of the disc. Albert takes some of the topics in the story to a fresh level of detail; Wendy is full of facts and does a mean giraffe impersonation; and Pablo has an artistic bent (bent what, you're never told).

If your bundle of joy tires of the story, you can exit at any time and go to the activities. There are a couple of games and a colouring book option – these are also cleverly constructed and aim to please.

At £25 this disc is more costly than a conventional storybook (but cheaper than most CD-ROMs), and if the traditional parent in you would prefer to read your child a story, then fair enough. But *Marvin the Ape* is a wonderfully accomplished children's disc. And, you never know, it might even keep the little blighter quiet for a few, precious hours.

GARY TIPP

Marvin seeks refuge in the cinema. Can you try and guess the movie? Yep, *King Kong*.



This is the very fetching opening screen. Look left for help, look right to start the story.

THE ESCAPE OF MARVIN THE APE

Price: £25. **Out:** now.
Requires: LCII or better, 4Mb of RAM, System 6.0.7 or later, 256-colour monitor, CD-ROM drive. **Age range:** three to nine.
Contact: Asymetrix on 0171 454 1061.

MACFORMAT RATING 82%

The Berenstain Bears Get in a Fight

Kids won't stop bickering? Stick them in front of your Mac and let them watch brother and sister bears vent their spleens in this beautifully animated Living Book.

What an excellent name! Rumour has it the working title for the sequel is *The Berenstain Bears go for a Curry*. But don't believe all you hear. Sadly this children's CD-ROM is labouring under something of a misnomer: it's more of an ursine siblings' tiff than a full blown bout of fisticuffs. More's the pity.

The Berenstain Bears Get in a Fight is the latest in the Living Books series from Brøderbund and follows the same standard formula as its forerunners. The narrative is read to you over 12 'pages'. You can choose to simply watch and listen or, alternatively, you can interact in the same fashion as in *The Escape of Marvin the Ape* (reviewed on the opposite page). However, where the latter has a contemporary feel, this disc is altogether more traditional and moralistic, in a familiar, safe and wholesome way.

The plot is reminiscent of Ibsen's later work, involving a brooding brother and sister, whose moods worsen with the weather – in fact, little else happens, really. All very symbolic. Without giving too much away, you can rest assured that the storm breaks and the sun does reappear at the end.

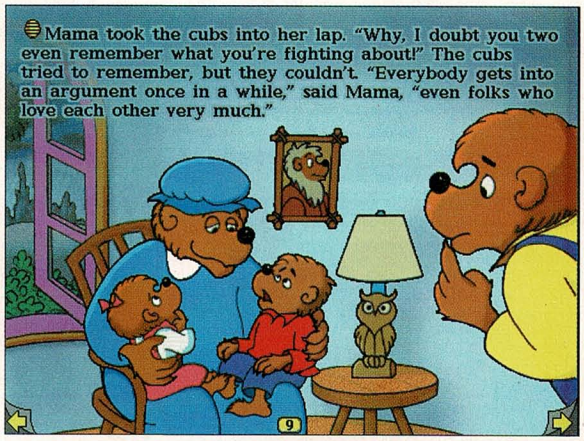
But will your kids enjoy this disc? Do the Berenstain Bears go down to the woods? Each page is certainly a delight to behold, and the full-motion animation is very slick. The hotspots are generously sprinkled over the page and each one is full of an engaging, gentle humour.

One gray morning Brother and Sister didn't get along well at all! Maybe it was the weather—or maybe it was because the mockingbird slept late. But whatever it was, they got into a big fight...

Hotspots abound in the bedroom. Click on the mockingbird for an early morning sing-song.

On an educational level *The Berenstain Bears* assumes that your child's reading skills will develop through word recognition. As the narrator reads the words aloud, each phrase is highlighted. If you click on the 'beehive' at the start of the sentence the text will be repeated, while if you click on any individual word, it will be pronounced for you.

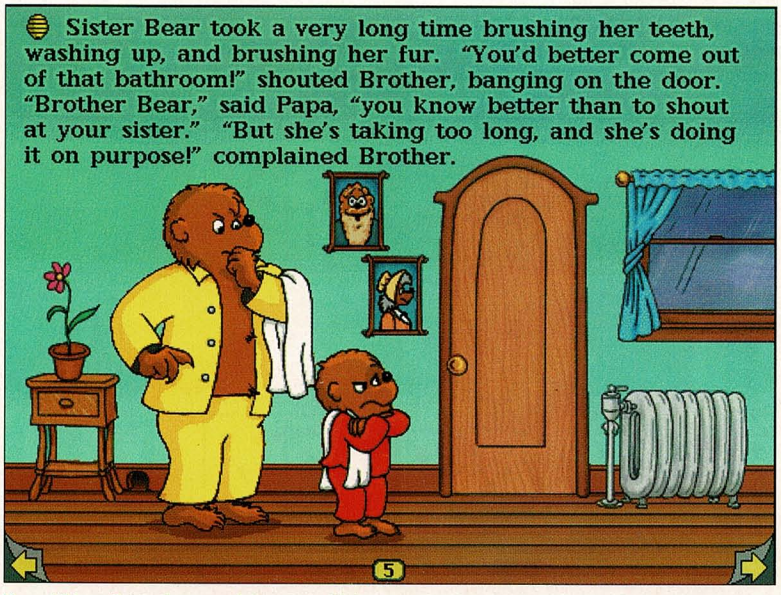
On the downside, there is little diversity for your child beyond the story environment. A Parents' and Kids' Activity Book is included as a companion piece, but this would have been much better if it was integrated into the disc itself. Also, the disc doesn't truly enable children to explore freely. The cursor is disabled throughout much of the narrative and only reappears when it is ready. Click on a hotspot accidentally, and you'll have to wait for the animation to complete, which can get a little tiresome.


Mama took the cubs into her lap. "Why, I doubt you two even remember what you're fighting about!" The cubs tried to remember, but they couldn't. "Everybody gets into an argument once in a while," said Mama, "even folks who love each other very much."

Ma and Pa Berenstain are nice bears with high moral standards.

Criticisms aside, this is a quality product, and if you trust the fruit of your loins within 50 yards of your beloved hardware, *The Berenstain Bears* will guarantee him or her hours of educational fun.

GARY TIPP


Sister Bear took a very long time brushing her teeth, washing up, and brushing her fur. "You'd better come out of that bathroom!" shouted Brother, banging on the door. "Brother Bear," said Papa, "you know better than to shout at your sister." "But she's taking too long, and she's doing it on purpose!" complained Brother.

Your children dictate the pace of the story, which means that they can keep Brother Bear waiting outside the bathroom for hours if they choose. Power corrupts, absolute power corrupts absolutely.

Brother and sister Berenstain both woke up one morning like bears with sore heads.

BERENSTAIN BEARS

Price: £40. **Out:** now.
Requires: LC or better, 4Mb of free RAM, System 6.0.7 or later, 256-colour monitor, a CD-ROM drive. **Age range:** three to eight.
Contact: Brøderbund on 01429 273029.

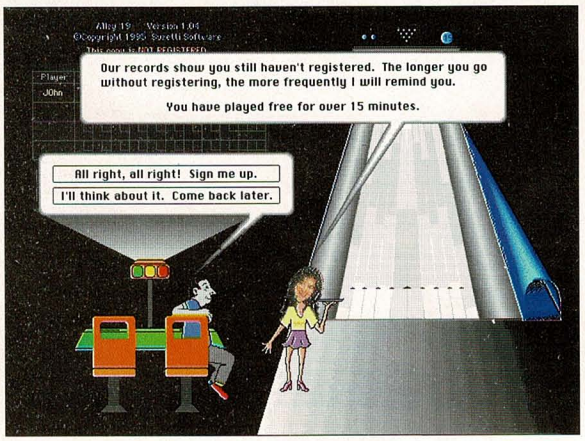
MACFORMAT RATING 76%

FURTHER RELEASES

Brøderbund have acquired the rights to the entire Seuss collection, and are soon to be releasing discs based on the Dr Seuss books, starting with *Dr Seuss's ABC*.

SHAREWARE AND PD

The mountain of software offered by the Internet continues to grow. Colin Dalziel dons his crampons to reach previously unconquered summits.


Our records show you still haven't registered. The longer you go without registering, the more frequently I will remind you.
You have played free for over 15 minutes.
All right, all right! Sign me up.
I'll think about it. Come back later.

The waitress keeps trying to get you to part with your money while you try and get on with bowling.

There's absolutely no smut in this month's shareware selection. It's all good, clean, decent fun this issue, now that Colin's in charge.

Alley 19

BOWLING GAME

Shareware, registration fee $13

A ten-pin bowling game – that should be fun. How wrong can you be? The graphics are so hugely unimpressive that you're almost impressed by them, and the gameplay is simply dull. To add insult to injury, the game is continually being interrupted with reminders that you should register it. While supporting shareware authors is a noble and worthy cause, and one that we at MACFORMAT thoroughly endorse, this game's methods of persuasion are most irritating: a waitress pops onto the screen every minute or so to remind you that you haven't yet posted your cheque, and the longer you play the game, the more often the reminder appears. What the author has failed to realise is that after about five minutes of these prompts, most people will just hit the Quit button rather than playing the game, deciding they like it and registering.

But then, proper bowling isn't that great a game either. The shoes are naff, and they never quite fit.

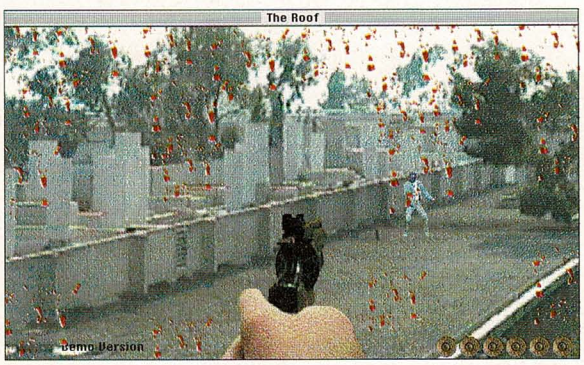
All the shareware featured here is on our covermounted CD-ROM

QuickShot

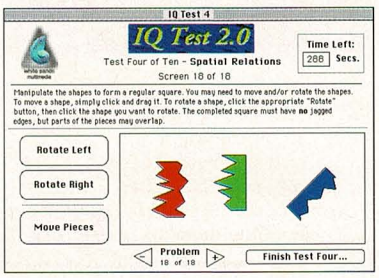
SHOOTING GAME

Shareware

We've had a game similar to this on the CD before, but *QuickShot* really puts you to the test. In this demo version you're given access to one of six scenes and a gun. You have to shoot people before they get you and cause a bloody mess on your monitor. Set your mouse to the fastest speed, though – you have to be quick on the draw to get these baddies.



Blood flies if you aren't quick enough on the draw in *QuickShot*.


IQ Test 4
IQ Test 2.0
Test Four of Ten - Spatial Relations
Screen 18 of 18
Time Left:
288 Secs.
Manipulate the shapes to form a regular square. You may need to move and/or rotate the shapes. To move a shape, simply click and drag it. To rotate a shape, click the appropriate "Rotate" button, then click the shape you want to rotate. The completed square must have no jagged edges, but parts of the pieces may overlap.
Rotate Left
Rotate Right
Move Pieces
Problem 18 of 18
Finish Test Four...

Prepare for *The Krypton Factor* with this tough challenge.

IQ Test 2.0

INTELLIGENCE TEST

Shareware, registration fee $12

This one is for MENSA types, so that rules out everyone on MACFORMAT. It includes loads of logic problems – the idea being that you get stuck into them in an effort to prove that you have a higher IQ than Einstein. In the unregistered version there are four rounds of questions to tackle. You start off with a memory test where you are shown 20 objects for 90 seconds, and each object has an associated number which you must recall during the following 90 seconds. Next up is a find-the-missing-number quiz – which is quite easy. The third will take you right back to school maths tests, while the last involves moving shapes around to form a square, in a *Krypton Factor* sort of way. By the end of the test your mind should feel sufficiently boggled and you might need to lie down, but at least you'll know which side of your brain is stronger. Good clean fun.

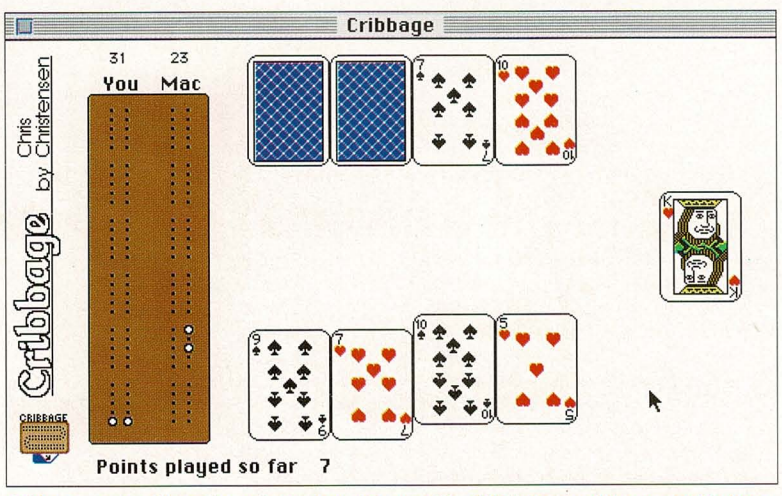
Cribbage 2.6

CARD GAME

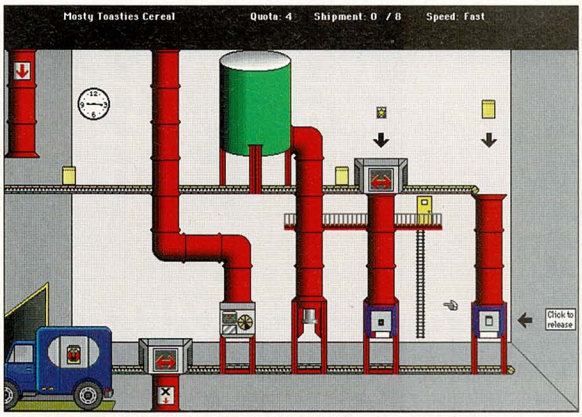
Shareware, registration fee $5

Card games might sound dull to you, but Cribbage hasn't been around for over 300 years without good reason, you know. If you already know how to play Cribbage then this Mac version offers you hours of trying to beat a mere machine. If you're new to the game, it explains the rules and generally makes life easier.

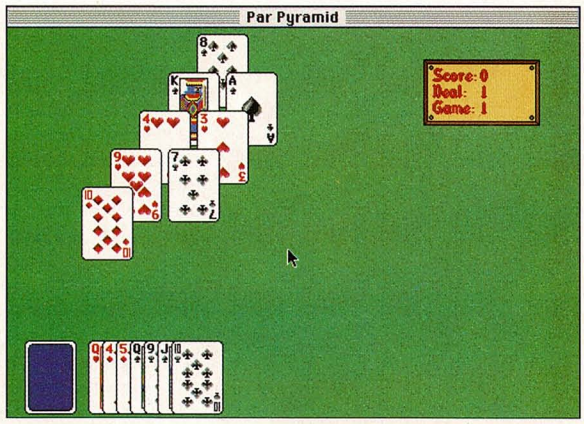
As an opponent, *Cribbage 2.6* is slightly easier than the earlier version, which seemed to keep all the good cards to itself. But things may even



Cribbage – an age-old popular card game brought to your Mac. It includes everything you need to know to learn how to play, but if you're an expert you may be frustrated by its simplicity.



Get those Toasties in the cereal boxes, and don't forget the nasty little plastic gift.



You'll need plenty of patience to get to the top with *Par Pyramid*.

have gone too far the other way – it's now easier to win than lose. But winning is more fun, anyway. If you feel up to it, you could always try the Expert mode, which really does put your tactical card skills to the test.

There is one very minor bug in this otherwise reasonable game. When the cards are dealt, some of the cards in your hand appear before you've actually been given them. This doesn't affect the game at all, but it is just one tiny thing that needs tidying up for the next version.

Factory

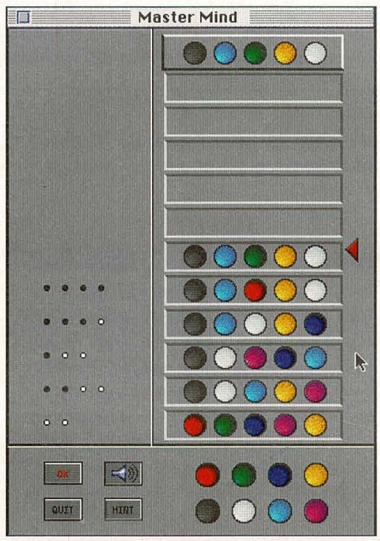
STRATEGY GAME

Shareware, registration fee $10

Factory was originally going to be released as a full commercial package, but it didn't quite make the grade. While its graphics are bright and clear, it could really do with a few more factory sound effects.

The gameplay is simple but effective. You're given a different task each day, with a set quota which you must meet, or it's UB40 time! To fulfil your duties you have to make sure that various items go into the correct bin via a set of conveyer belts. The parts can then be assembled into the final products, but if the wrong part goes into the wrong bin, you get a reject which ends up on the van and results in a reduction in your wages. Too many rejects and out you go.

To enjoy the game, set the speed to the fastest setting – otherwise you'll spend about half an hour waiting for the parts to move along the conveyer. Even on the fastest speed the first two or three levels are far too easy (the cat managed them without any problems), but once you get to the fourth and fifth levels you have to get much more of a move on – and the unregistered version provides you with an entire month's worth of levels. It's a shame you can't save a game and come back to it, avoiding those tiresome early levels, but perhaps registering will help – it enables you to open and edit new files so that you can set yourself a heavy workload...



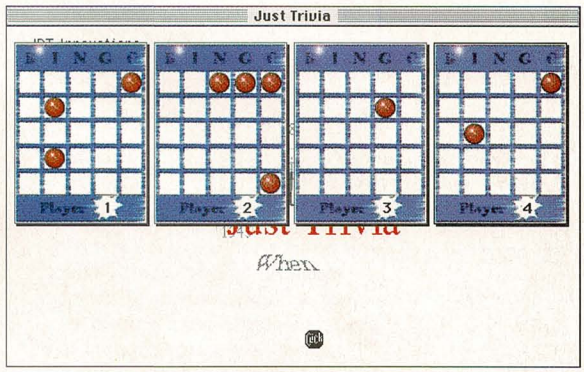
Master Mind the board game comes to your Mac, only bigger and more colourful than before.

Master Mind

BOARD GAME

Freeware

This is a version of the Master Mind board game that you may have played on long car journeys as a kid. The aim is to match the coloured marbles with the hidden combination. You are given hints as to how well you're doing by white and black indicator marbles, which appear after each guess. The only difference from other versions of this game is that you have five colours to match, not four, and the only problem is that you need a colour PowerBook to play it in the back of the car.



Get your friends round for a night of trivia challenge, but make sure they don't forget the drinks.

Par Pyramid

PATIENCE GAME

Freeware

Apparently this is a version of the classic solitaire game Pyramid Solitaire – not the most famous card game in the world, but maybe it was a biggie in the days before electricity. However, now that we have the wonders of modern technology, this is a bit like using a sledgehammer to crack a nut.

Par Pyramid is programmed just as well as most card games and looks attractive enough, but it's not the easiest

Continued on next page

CONFUSED ABOUT SHAREWARE?

■ **Shareware** is a form of 'try before you buy' software selling and it's a great idea so long as you're honest. When you get some shareware, the documentation file accompanying it will tell you how much it costs – typically it's somewhere between US$5 and $40 – and where to send your money. If you like the software and decide to keep it, then you're morally obliged to cough up. Not only do you get the satisfaction of boasting to friends about how honest you are, but the author will often give you something in return for registering, like a printed manual, or updates when released. The most common problem is sending money abroad, but as many shareware authors now accept credit cards, it's getting easier.

■ **Freeware** means that you don't have to pay for it at all. There are many derivations, such as postcardware, which means you have to send a pretty postcard to the author.

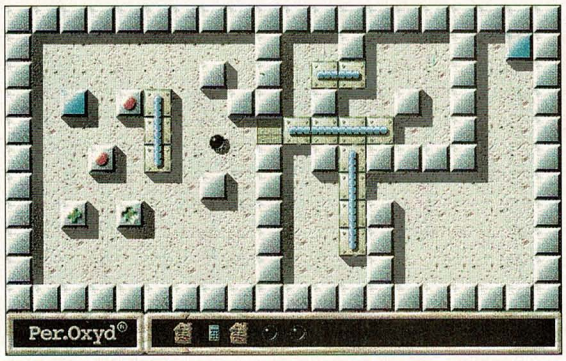
But freeware is not strictly the same as **Public Domain** (PD) because although you don't pay for freeware, the author keeps copyright and you have to follow his terms and conditions to use the program. This often means keeping all the files together and not using or selling them for profit.

Per-Oxyd

PUZZLE GAME

Shareware $39

As you may have guessed from the name, this is the follow up to *Oxyd*, the puzzling game where you have to match up shapes by tapping a marble against little blocks. It sounds simple, but you have to overcome all sorts of obstacles to get at the blocks. Sometimes the marbles are held in place by elasticated string, other times you have to push blocks around in the correct order – and watch out for the water that sucks you in! The graphics are simple but effective, and the way the marbles bounce around with realistic clicking noises is near perfect. You can play single or double marble versions of the game, and there are 11 levels for you to get completely addicted to.



A little thought is required before you go bashing your marbles around!

When you're ready for more, you can even buy a book that gives you codes for the higher levels. This is one of those games that has you saying, 'Just one more go...'

of games to get stuck into. You start off at the bottom of the pyramid and your aim is to match up pairs of cards – they must either add up to 13 or have the same face value (such as two kings, or two sevens). Unfortunately, you never seem to get to the top of the pyramid, and the score, slightly dishearteningly, ends up in the negative more often than the positive.

Patience games are supposed to be relaxing – played in front of a log fire with a nice cup of cocoa on a winter's evening in your country cottage. Not this one. If the cards were real, you'd probably throw them on the fire and pour yourself a stiff whisky instead.

Just Trivia

QUIZ GAME

Shareware, registration fee $25

Pubs really aren't the best place in the world to concentrate on tough trivia questions. After four pints of alcoholic lemonade, you're never at your best. And why is it that at the crucial moment someone always wins the jackpot on the fruit machine, which is strategically situated between you and the question master? Much better to buy yourself a black chair and spotlight and dim the lights in your living room, for an atmospheric evening of questions. Or, on sensible reflection, maybe not.

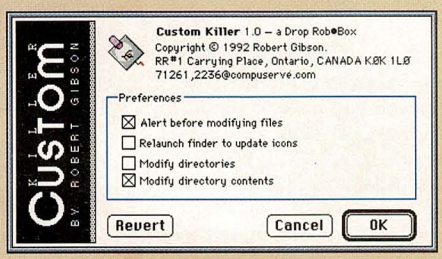
Which brings us by a circuitous route to *Just Trivia*. It's based around a bingo board, and you fill in a randomly selected square on the board for every question you get right. Once you've filled a line, bingo! You've won. You can have up to four players, so there's no need to waste your time down the pub – just get your mates

SPEED UP YOUR MAC WITH GO FASTER SHAREWARE!

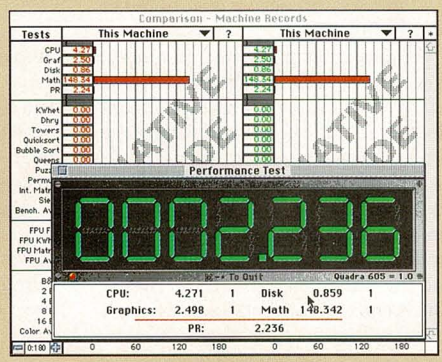
In addition to our usual shareware folders on the Cover CD this issue, we also have a special selection of Go Faster Shareware to accompany our cover feature...

Do you get tired of moving your mouse from the bottom of the scroll bar all the way to the top when you want to change direction? A solution is at hand, in the form of *Double Scroll 2.0*. This Control Panel puts an Up and a Down arrow at both the top and bottom of the scroll bar, so instead of two arrows, you'll have four. This means that, instead of having to move your mouse the full height of the screen, you'll only need a tiny nudge to change the scrolling direction – extremely effective and surprisingly time-saving.

You can also save time by increasing the speed at which your windows open. *Zoomin'* opens up your Mac windows up to 600% faster than the normal System software – all you have to do is drop it in your System folder, restart and watch those windows fly open. And try *Speedy Mouse* – a tiny utility that makes your mouse move at about twice the normal speed!



Want to make your Mac run faster? Of course you do. Our special collection of utilities can help by enabling you to modify your windows, create a RAM disk, and much more.

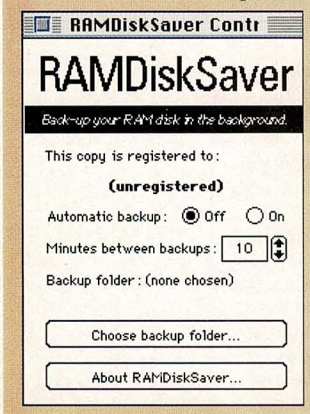


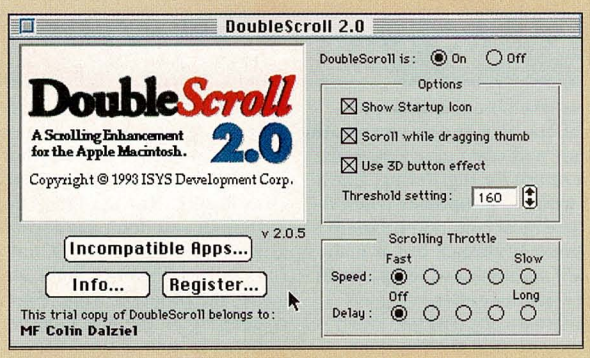
Custom Killer 1.0 – a Drop Rob•Box
Copyright © 1992 Robert Gibson.
RR#1 Carrying Place, Ontario, CANADA K0K 1L0
71261,2236@compuserve.com

Custom Killer is a Control Panel that does away with the boring old icons that Apple has given us. Not only can you change the standard icons, but you can also change the custom icons on CD-ROMs, but if you want to destroy custom icons completely, *Custom Killer* is an easy-to-use utility that does just that. To use it, just drop your files, folders or even disks (but not CDs, 'cause they're locked, right?) onto *Custom Killer*, and all the icons will be purged. *Custom Killer* clears up all files, wherever they are within the disk or folder that's being cleared.

Want to find out exactly what's going on inside your Mac? Take a look at *Speedometer*. You can use it to run all sorts of tests that check the speed of your processor, how fast your hard drive is, how your machine compares to others, and much more.

A RAM disk is a super-fast 'disk drive' created out of RAM – we've included several utilities that can make one for you. The only problem is that it's not a real disk, so you lose any data 'saved' to one if your Mac crashes. *RAMDiskSaver* backs up your RAM disk at preset intervals to help minimise your loss.



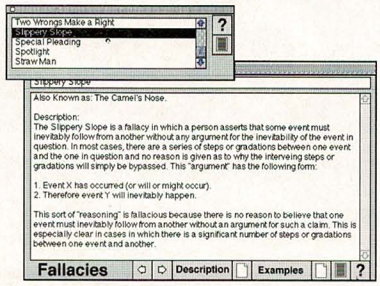


Fallacy Tutorial Pro

PSEUDO-INTELLECTUAL

Shareware $10

This program must be one of the saddest pieces of work to hit the shareware scene in a long time. You are led through popular and not so popular phrases and told that they are all pure fallacy. For example, the phrase 'The slippery slope' is a fallacy because: 'There is no reason to believe that one event must inevitably follow from another without an argument for such a claim. This is especially clear in cases in which there is a significant number of steps or graduations between one event and another.' Okay, this is a logical argument. So if you fall from the top of Mount Everest, you might not reach the bottom. You might break your fall by landing on a Sherpa instead. It may be logical, but it's fairly pointless.


Two Wrongs Make a Right
Slippery Slope
Special Pleading
Spotlight
Straw Man
Slippery Slope
Also Known as: The Camel's Nose.
Description:
The Slippery Slope is a fallacy in which a person asserts that some event must inevitably follow from another without any argument for the inevitability of the event in question. In most cases, there are a series of steps or gradations between one event and the one in question and no reason is given as to why the intervening steps or gradations will simply be bypassed. This "argument" has the following form:
1. Event X has occurred (or will or might occur).
2. Therefore event Y will inevitably happen.
This sort of "reasoning" is fallacious because there is no reason to believe that one event must inevitably follow from another without an argument for such a claim. This is especially clear in cases in which there is a significant number of steps or gradations between one event and another.
Fallacies
Description
Examples

Strong arguments to use next time anyone dares to come out with an innocuous phrase.

So what is the point of this program? Are we supposed to become better people by arguing the toss over everything in the world? There really must be something you'd rather do with your computer than wasting time theorising about common phrases. All this program does is depress you by informing you that those silly little clichés you love to use are rubbish. Didn't someone once say the Mac is supposed to be fun?

By the way, one of the phrases covered is, 'Two wrongs make a right.' Isn't that supposed to be, 'Two wrongs don't make a right'?

round, buy a bottle of lemonade and away you go. There are two sets of questions for you to tackle, general trivia and Biblical trivia, but the general trivia is very American, so unless the Bible is one of your specialist subjects you'll be disappointed. With only 100 questions in each of the sets, it isn't long before the questions are repeated, although a slightly flawed solution to this problem is provided – if a question is repeated, the answer given originally is unavailable, which is rather tedious if you got the answer right first time. Ho hum.

Font O'Matic

FONT UTILITY

Shareware, registration fee $10

In these days of WYSISYG it's easy to forget that not all word processors display fonts as they actually appear on the final printed page. *Font O'Matic* goes part way toward solving the problem by giving you a little window of text enabling you to see what the font looks like. The unregistered version restricts you to seeing the supplied text only at 12pt, but for a bargain $10 you can enter your own text at any size you want.

Not Virtual!

UTILITY

Freeware

If you use *RAM Doubler*, you've doubtless experienced the frustration of trying to start up memory hungry applications and getting an error message telling you that they won't run because virtual memory is switched on – despite the fact that you never use virtual memory. This is caused by the fact that your poor little Mac isn't a clever enough beast to tell the difference between the two, and pops up the alert every time it has a slight panic. When this happens, the only way around the problem is to switch off *RAM Doubler*, restart your Mac, and sit round waiting for everything to get going again.

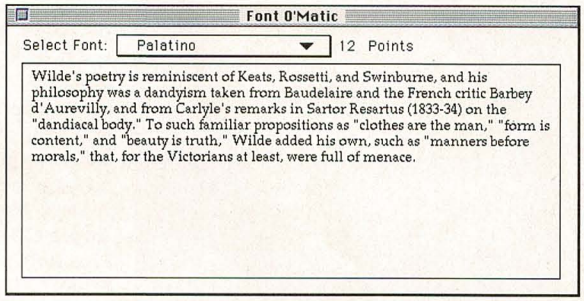
Not Virtual! sorts out this little mess by preventing programs from recognising *RAM Doubler* or virtual memory – so from now on there's no need to waste time rebooting just because, like the rest of us, you can't afford to invest in some real RAM.

OrgaNicer 1.2

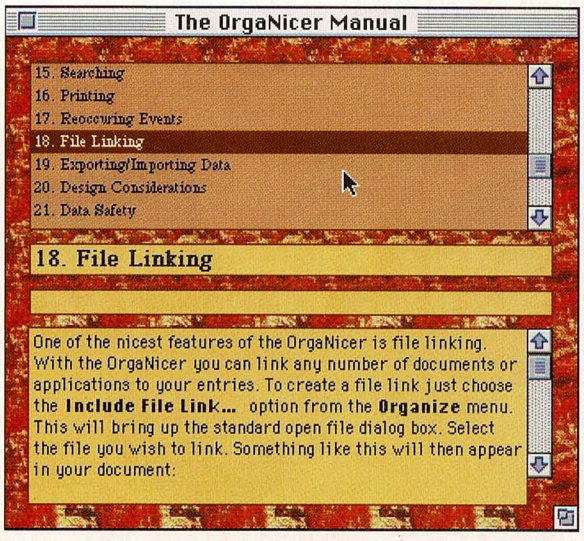
PERSONAL ORGANISER

Shareware, registration fee $5

OrgaNicer 1.1 was our star shareware package last issue and an update is already available. One very impressive new feature is file linking – you can link entries for instant access to work files. Once a link is defined, simply hold down **[command]** when you click on your entries to launch the application and load the file. You can even use this features to load QuickTime movies or sound files – so your Mac can shout reminders at you. **MF**


Font O'Matic
Select Font: Palatino
12 Points
Wilde's poetry is reminiscent of Keats, Rossetti, and Swinburne, and his philosophy was a dandyism taken from Baudelaire and the French critic Barbey d'Aurevilly, and from Carlyle's remarks in Sartor Resartus (1833-34) on the "dandiacal body." To such familiar propositions as "clothes are the man," "form is content," and "beauty is truth," Wilde added his own, such as "manners before morals," that, for the Victorians at least, were full of menace.

Using *Font O'Matic* you can display your fonts on screen as they will print out. It also gives you the opportunity to use words like 'dandiacal'.


The OrgaNicer Manual
15. Searching
16. Printing
17. Reoccuring Events
18. File Linking
19. Exporting/Importing Data
20. Design Considerations
21. Data Safety
18. File Linking
One of the nicest features of the OrgaNicer is file linking. With the OrgaNicer you can link any number of documents or applications to your entries. To create a file link just choose the Include File Link... option from the Organize menu. This will bring up the standard open file dialog box. Select the file you wish to link. Something like this will then appear in your document:

As if *OrgaNicer* wasn't already wonderful enough (see last issue's Shareware pages to see why), it now features file linking for instant access to work files.

WHERE TO FIND THEM

We often get calls from readers who want to know how to get hold of some of the shareware reviewed in these pages. Well, here are some of the methods:

1. Buy the CD-ROM edition of MACFORMAT: all the shareware we review in each issue is on there in a separate folder. There's also loads of other shareware on the CD-ROM every month, which we've even sorted into separate categories for you.

2. Write to a shareware dealer; there are several who advertise in the back of MACFORMAT. The dealer should have the program you're after, especially if they subscribe to our CD-ROM edition!

3. Use the Internet, if you have access. One of the best sources around is Imperial College at **src.doc.ic.ac.uk.** Use ftp to connect (login: anonymous; password: your e-mail address) and cd to computing/systems/mac. Round here, we're big fans of the umich directory, but sumex is fine as well.

4. Local user groups often have libraries of shareware – see if you have one near you. A few are listed in Reader Ads (on page 137).

Wherever you get your shareware, beware of viruses. At present, *Disinfectant 3.6* (on MACFORMAT 26's Cover Disk and every CD-ROM) is the best and cheapest way of staying safe.

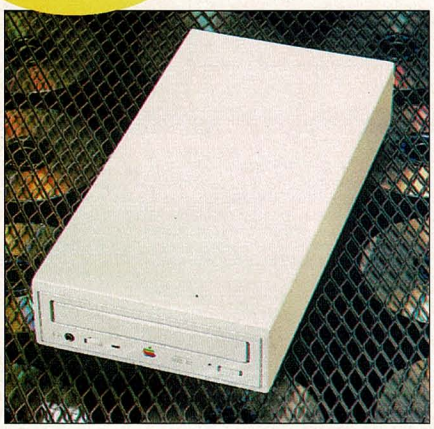
MACFORMAT OFFERS

MACFORMAT offers you the best Mac products at the best prices. All prices include VAT and delivery! Order now by mail or phone 01225 822511.

NOW ONLY £189 plus delivery and VAT

Apple CD300E Plus and Cinemania '95

Join the multimedia revolution with this top hardware plus software deal – Apple's own double-speed CD-ROM drive, plus the brand new *Cinemania '95* at no extra cost! The CD300E is a caddyless double-speed drive capable of playing PhotoCDs and audio CDs as well as CD-ROMs. *Cinemania '95* is the latest edition of Microsoft's definitive multimedia reference guide to films.



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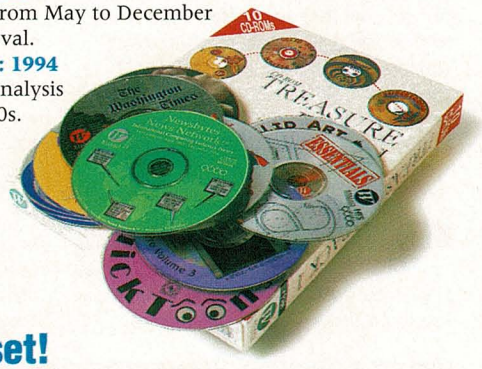

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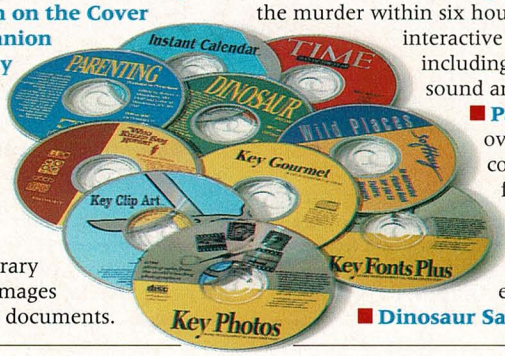

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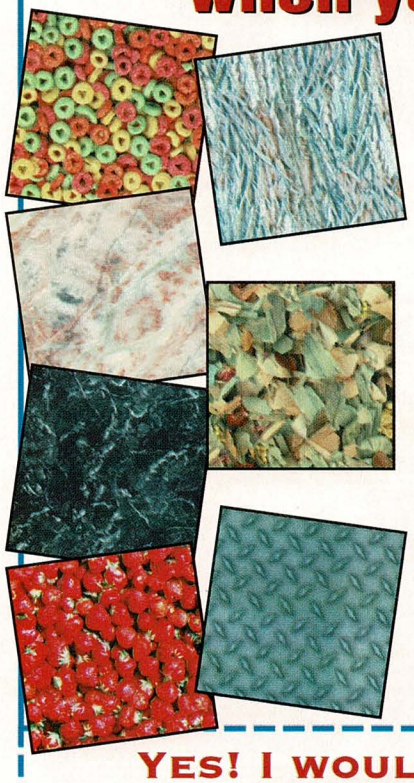

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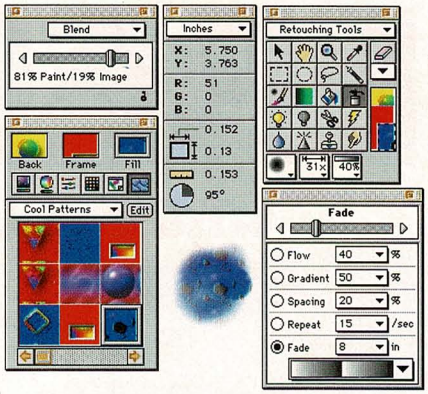

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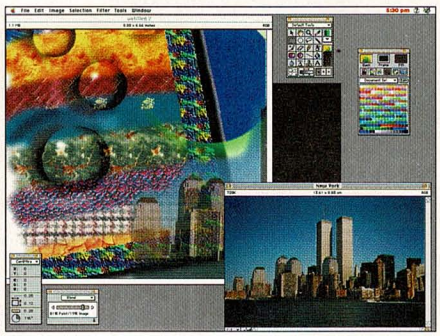

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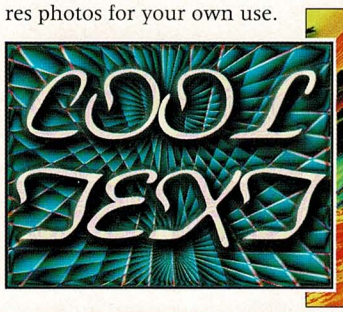

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December 1994

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■ **Inside:** the lowdown on accelerators; the 20 top Mac games; SCSI trouble-shooting; *IntelliTalk;* OCR user guide plus Internet books reviewed

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ISSUE 20

January 1995

■ **On the disk:** build worlds with *Fractal 1.2; Maniac 2.1.1; RAMDisk+ 3.23*

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available

■ **Inside:** virtual reality special: *KPT Bryce* and *Star Trek Tech Manual; Word 6* vs *Nisus Writer;* how to write games for your Mac

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February 1995

■ **On the disks:** *VideoShop 2.0;* plus 3Mb of games and utilities; *Trojka; WordSmith* and shareware

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available

■ **Inside:** video editing on Macs: how to do it; budget games; and what to buy if you run out of disk space

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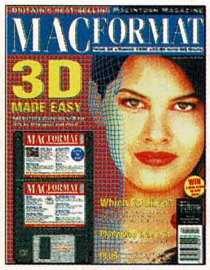

ISSUE 22

March 1995

■ **On the disks:** *Infini-D* demo; *MacConcept; Blobbo*

■ **On the CD-ROM:** 3D spectacular; *The Crystal Rainforest; VideoFusion*

■ **Inside:** how to create 3D images on your Mac; *Photoshop 3.0* reviewed; font problems solved; CD-ROM drives tested; and the most realistic flight sim ever

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ISSUE 23

April 1995

■ **On the disk:** *Oh-no! More Lemmings; StuffIt Lite 3.5*

■ **On the CD-ROM:** comics collection; *PAWS; Sources of Faith; Marathon*

■ **Inside:** comics on the Mac – interviews, reviews and how-to's; *FreeHand* vs *Illustrator;* colour printers; reviews of *XRes* and the best Mac game ever – *Marathon*

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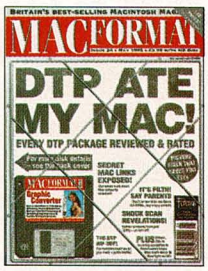

ISSUE 24

May 1995

■ **On the disk:** *Graphic Converter; MacCheckers!*

■ **On the CD-ROM:** demos of five top DTP programs, including *QuarkXPress* and *PageMaker,* plus *Photoshop 3.0* and *ClarisWorks 3.0*

■ **Inside:** every Mac DTP package reviewed and rated; colour scanners; networks explained; *PhotoFix* reviewed

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ISSUE 25

June 1995

■ **On the disk:** *Knot 1; MacSnails; Glypha 3, TypeIt4Me, Electric Poet* and MIDI files

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available.

■ **Inside:** all you need to know about PowerMacs, fax-modems tested; plus some 'Cosmic' CD-ROMs

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ISSUE 26

July 1995

■ **On the disk:** animation programs, *Disinfectant 3.6*

■ **On the CD-ROM:** demos of *ProMotion, Amazing Animation, Elastic Reality, Morph* and *Circus,* plus *3D Dinosaur Adventure.*

■ **Inside:** animation on the Mac; 15- and 17-inch monitors reviewed; comms made easy with *TeleFinder*

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ISSUE 27

August 1995

■ **On the disk:** *Anagrams, Word Breaker, Smart Calendar, Xearth* and *BattleTanks*

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available

■ **Inside:** the complete guide to portable Macs; Internet basics series; plus portable printers reviewed.

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ISSUE 28

September 1995

■ **On the disk:** *Catch The Buzz, Lobster, DragThing.*

■ **On the CD-ROM:** *Color It!, Dark Forces, Circle Elements* and *WorldWrite* demos, plus over 75 high-res clip photos.

■ **Inside:** image editing; what those Extensions and Control Panels *do;* graphics tablets, PaperPort scanner and *Dark Forces* reviewed.

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ISSUE 29

October 1995

■ **On the disk:** clip art, games and utilities, fonts.

■ **On the CD-ROM:** clip art, 55 high res photos, Bomb Busters, *Discworld* demo.

■ **Inside:** eye-catching black-and-white DTP; clip art collections, *KPT Vector Effects,* language learning software and multimedia encyclopaedias reviewed.

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ISSUE 30

November 1995

■ **On the disk:** *MacPipes, MacQubic, Gossamer.*

■ **On the CD-ROM:** HTML authoring software, *QuickEditor,* QuickTime 2.1, *SmartSketch* demo.

■ **Inside:** publishing on the Net and CD-ROM, QuickTime utilities, *Alone in the Dark, SmartSketch,* input devices – alternatives to the mouse.

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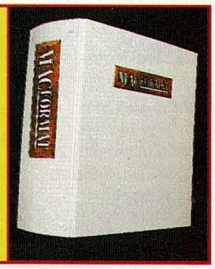

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Doom 2 Hell on Earth

Blood, guts, gore, and mayhem. If you thought using *Microsoft Word* was daring, then wait till you visit hell. Derek Smith's been there for years.

Revenants fire homing missiles, but he won't dare at this range. Unfortunately you're armed with your rocket launcher, so you can't fire either. Game of chess?

MACFORMAT Classic

When *Doom* appeared on the PC a couple of years ago, it created a huge amount of attention. Game lovers discovered a whole new genre, while game haters discovered an ultra violent bloodbath that would corrupt young minds. Now, finally, not *Doom* but *Doom 2* arrives on the Mac.

At close range there's nothing quite as satisfying as blasting a zombie and watching him explode. Violence, what violence?

Doom 2 is similar in gameplay to *Marathon* and *Dark Forces*. You wander around a 3D virtual reality landscape, exploring rooms, solving puzzles, avoiding traps... but most of all you shoot lots of things with lots of guns. *Doom* proudly boasts its gore credentials, unashamed of its violent content.

Doom 2 is set in the future, and pits you against demons and monsters that have escaped from hell and are determined to make sure you won't have a nice day. Atmosphere is important in games like this, and *Doom 2* creates a dark evil world reminiscent of horror movies and video nasties. You encounter zombies with machine guns and imps that spit balls of fire at you, then, later, flying demons, invisible monsters and goat-headed Hell Knights. Towards the end of the 30 levels you meet chaps like the Arch-Vile, who attacks you with magic even when you hide, and resurrects the bodies of foes you've already killed.

It's not all bad news. Although you only start with a hand gun, you soon collect an arsenal of weapons that would daunt any Schwarzenegger movie character. First up is a shotgun which delivers a heavy wide range impact, but only at close quarters. For longer range you'll want the chaingun, or the very powerful rocket launcher. Finally you discover the pleasures of the plasma rifle and the BFG 9000s (it's not made clear what BFG stands for, of course). With many games, once you've found the better weapons, you never use the previous ones, but in *Doom 2*, even with the BFG at your disposal, you still need to select carefully from your entire range, because different weapons suit different situations. You only have limited ammo for each gun, so you don't want to waste the plasma rifle on a zombie when a shotgun can dismember him with one blast. And the rocket launcher has a large kill area, so don't use it in close combat – you'll blow yourself up as well.

Yes, it is a nice shade of red, but do you have it with a touch of orange to match the curtains?

You can save the game at any point, but while this helps you survive, it detracts from the gameplay. If you arrive at a forbidding door, you save the game, then open the door. Sure enough, inside is the terrifying Revenant Zombie Demon, who takes your head off with his homing missiles. So you open the saved game, arm yourself with the BFG, open the door and blast first. The tension is destroyed as quickly as the Revenant will be. *Marathon's* policy of only allowing you to save the game at set points through a level produces much more tension.

However, no amount of saving will help you in some situations. In one room you encounter both the Spider Mastermind and Cyberdemon, the two largest, meanest baddies in the game. The trick is to run quickly between the two, so that when attempting to shoot you they accidentally hit each other, and slug it out between them.

Entrails for walls

Whenever baddies die, they don't just fall down and lie there – instead they explode in a mass of gore that's reminiscent of Mr Creosote in Monty Python's *The Meaning of Life*. Shoot a zombie human with a shotgun and his chest bursts open, with his entrails painting the walls. Heads explode, bodies disintegrate and limbs melt to a bloody pulp. The bigger the baddie, the more spectacular the death. If you want to impress your mum with your Mac's graphical capabilities, then show her *Dark Forces*. If you want to offend and revolt her, load up *Doom 2*. The US version has an 'accelerated for Power Macintosh' logo emblazoned on the box, while the UK version opts for a 15 certificate, and a warning not to sell it to children under that age. Which will help sales more?

Doom on the Mac is, of course, welcome, but while on the PC it prompted and inspired better clones such as *Dark Forces*, on the Mac these games have come out the other way around. This means *Doom* is technically inferior. Unlike in *Marathon* and *Dark Forces*, for

NETWORKING

You can play against up to four friends (or even enemies) over a network, or collaborate against the monsters. You can even network Macs and PCs together.

Hey, buddy, do you want to look at my nice new shiny gun? It's got a great trigger thing. Oops, sorry, shall I get some TCP for that?

CD VERSION

The CD version of *Doom 2* offers little extra, but does mean that you don't have to install everything on your hard disk.

Having killed the Cacodemons with a plasma rifle, you can collect the blue bottles for extra health. Perhaps you should offer one to the Cacodemon.

Too scared to take on the Spider Mastermind? Get the Cyberdemon to do your dirty work. Better not tell him that he's forgotten his trousers, though.

The chaingun should show this lonely Lost Soul the error of his ways. Why is he so lonely? 'Cos he's got no body! Hah hah!

MY GUN'S BIGGER THAN YOURS

Playing *Doom 2* isn't a case of simply unplugging your brain for a couple of hours. This level requires you to solve a series of puzzles in a set order.

You need to complete this room to get the key for room seven. Lucky for you that there's a hidden invulnerability bonus in the corner.

When you enter the north room, everything looks quiet, but watch out for those holes in the walls – they contain a nasty surprise.

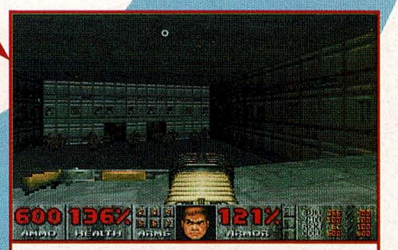
In the next room is a troop of demons, but they haven't learnt how to climb down from there yet. Look out for the secret room though.

The final challenge is to traverse these pillars that stand in a sea of radioactive ooze. What can go wrong? Just you wait!

In this room is a series of transporters. To access one of them you need to shoot the door. They haven't perfected the handle yet.

This door reveals an empty corridor. Unfortunately it soon becomes more crowded than is ideal. Better get that chaingun out.

The trick to this room is to cause confusion and get all these demons to blast each other. In the aftermath you'll find the key to room eight.



There's loads of Imps down there, but watch out, they have a transporter that makes them vanish… only to re-appear right behind you!

example, you can't look up or down – so you miss the fun of standing at the top of a ledge, looking down on an enemy, and dropping a grenade on him. But the *Doom* world is quite three dimensional, with stairs and lifts to different height levels, and although you can't aim your weapon up or down, if you shoot at a baddie who's on a different level from you, you still hit him… usually. It's not perfect, but it is perhaps better than the auto aiming that is necessary to compensate for tricky controls in *Dark Forces*.

Curiously, although the game's authors play up the violence while playing down the tactics, there is a significant amount of puzzle solving – which usually involves finding a hidden key by pressing buttons, or traversing tortuous routes. While *Doom 2* will definitely sate your bloodlust, it's not braindead. But hey, it's for an adult audience, right?

If you're looking to buy an action game then you should try *Marathon* or *Dark Forces* first. But it's a close race, and if you always wanted to see *The Texas Chainsaw Massacre*, then maybe *Doom 2* will be your cup of poison. It benefits from a fast Mac (particularly if you want all the graphics switched to max), but it also runs at a reasonable speed on an LC475, if you have the graphic detail turned down. With *Marathon*, *Dark Forces* and now *Doom 2* on the Mac, it has established itself as a serious game platform for blast-'em-ups. **MF**

This Mancubus asked to join our special diet plan. This is how he looked at the start…

…but after just two minutes he had lost 15 stone. The diet is a great success – no complaints yet.

DOOM 2

Price: £44.99. **Out:** now.
Requires: LC475 or better, 5Mb of free RAM, System 7.1 or later, 13-inch colour monitor, 20Mb of hard disk space, PowerMac native.
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GRAPHICS 89%
Well, they're fine if you have a strong stomach...

SOUND 87%
Decent stereo effects, including gratifying howls of pain.

GAMEPLAY 90%
The experience is so cathartic you'll be back for more.

MACFORMAT RATING 90%

WADs

These are home-made levels available by the hundred for the PC version of *Doom*. And guess what – they work on the Mac! To find some on the Internet try looking at **http://doomgate.cs.buffalo.edu/doomgate/**

Buried in Time

What do an Inca temple, a medieval castle, Leonardo da Vinci, and a space station orbiting Saturn have in common? James Ashton gets embroiled in the plot.

TIME TRAVEL

Travelling into the future depends on the ability to accelerate beyond the speed of light, something which Einstein's theories and most leading physicists tend to predict to be impossible. Travelling into the past, however, can be achieved simply by visiting certain areas of rural Suffolk.

Three generally accepted rules in life are: never expect much of graphical adventure games; always avoid sequels; and beware of anything that describes itself as 'epic'. Alas, the graphic adventure game *Buried in Time* is the sequel to *The Journeyman Project* and goes under the by-line 'The epic time travel adventure'. But do not fear or turn the page, for *Buried in Time* turns those three particular rules on their heads. After half an hour's play you won't be taking calls.

In *The Journeyman Project* you took the role of Gage Blackwood, Agent Five of the Temporal Security Agency, or TSA for short. It fell to you to thwart the plans of paranoid physicist Dr Elliot Sinclair and his time travelling tricks. Needless to say, you managed it and the earth lived happily ever after. But, in the manner of sequels, it's all gone wrong again.

Buried in Time opens with you as Agent Five sitting at home, feeling smug, perhaps polishing the odd medal or two, when – blam! – a future incarnation of yourself lands in the living room. The future Agent Five gabbles that someone or something in the future is trying to frame you for disturbing the fabric of time. Pausing only to change into your Time Displacement Unit (jumpsuit), you're off through time to find out what is going on. And so the game begins.

Sci-fi nonsense?

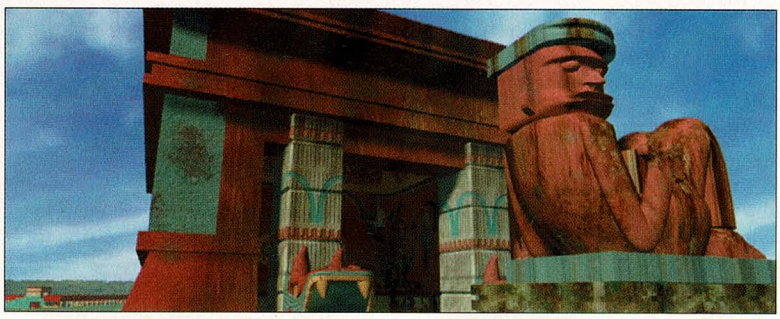
All this sci-fi nonsense disguises a reasonably simple game plan. From a starting base, you (in your role as Agent Five) have to travel to four different ages to gather clues and solve puzzles. The clues take the form of temporal anachronisms – which is an elegant way of describing objects existing in, say, the year 1250 that were only invented in, say, 1990. A Ford Granada at the court of King Arthur would be a particularly noticeable temporal anachronism, for instance.

This is the fourth game setting, the Saturn space station. You can't move around here until you find some kind of propulsion unit.

On your travels you must be careful no one sees you. Unfortunately, everybody else around seems to be having a bad day and wants to impale you on sight. Subtle observation is the key to avoiding death. Fortunately, your jumpsuit has a number of nifty features, including a cloaking device, an automatic anachronism clue search, and a null space void into which you can stuff just about anything you pick up along the way.

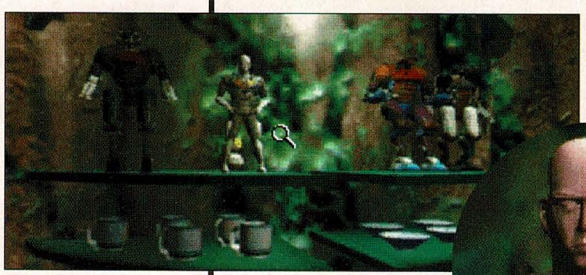
The jumpsuit also has the coordinates of the four time zones you need to visit to gather all the relevant clues: a prehistoric Inca temple, a besieged castle in Les Andelays circa 1200, the workshops of Leonardo da Vinci, and a deserted space station on a remote moon of Saturn far into the

If you're killed during the game, you're given a full run-down of your score and way in which you died. Just to rub it in, like.

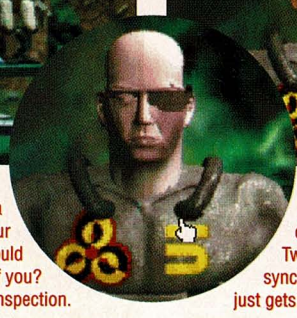


The prehistoric temple setting, a few paces from where you land. Unfortunately, the only way forward in this scene is to solve an extremely difficult puzzle inside the temple.

AN IDENTITY PROBLEM

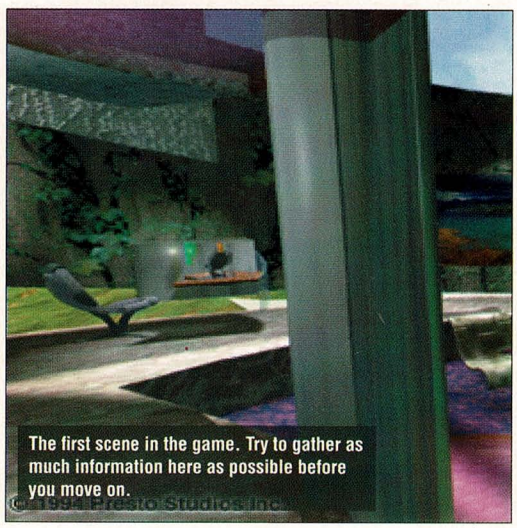


Now this shelf looks interesting. The magnifying glass cursor means you can click for a closer peek. Are these figures Action Men?



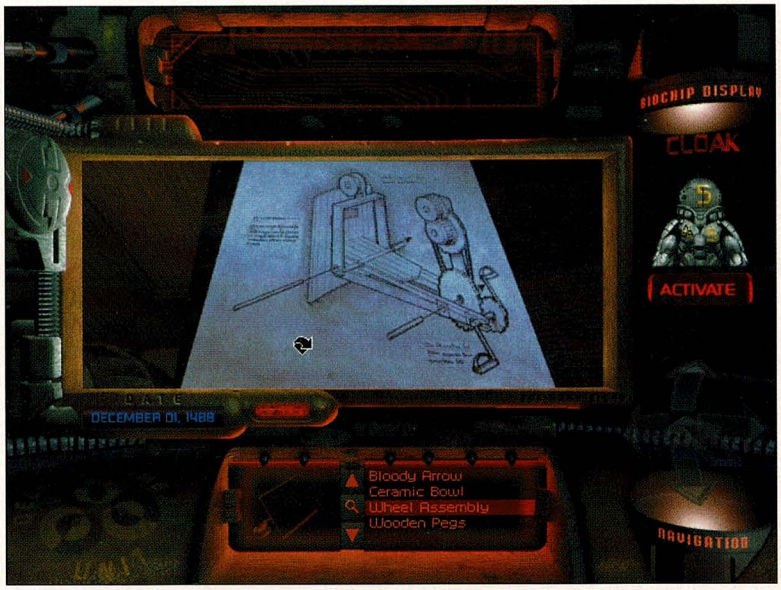
You're in closer now. Hold on, that figure's wearing a jumpsuit and it's got your number on it. Why would anyone want a model of you? Time for a closer inspection.

Blimey! That's the future you briefing the present you on your forthcoming mission. Two minutes of perfect, lip-synched QuickTime as well. This just gets weirder and weirder.



The first scene in the game. Try to gather as much information here as possible before you move on.

™ 1995 Presto Studios, Inc.



In Leonardo's invention hall you get the chance to check out some of his newest inventions. This is a machine designed for scaling big walls, or maybe besieging castles. *Could it be a clue?*

future. After you read the briefings on these destinations, your jumpsuit takes you to any of them on demand.

Breath-taking beauty

Graphic adventures generally suffer from one of two problems. Either they concentrate on the challenge, with the result that the graphics lose out and the game becomes a point and click, pretty postcard marathon (see *Myst* for further details). Or, if graphic realism is the programmer's main concern, the gameplay is neglected and you end up with a rolling demo you can complete in two hours at the first sitting (see *Cyberwar*). *Buried in Time*, however, is the perfect compromise.

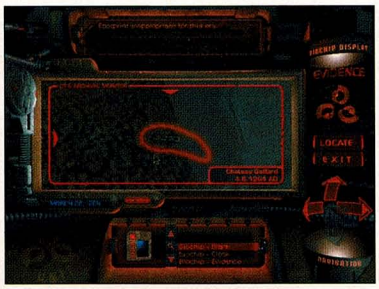
The graphics in *Buried in Time* are stunning, movement between stop points is easy via the intuitive direction interface, and you have the option to skip the walking animation, speeding the game along if you have to backtrack. And with three CDs to fill, the programmers haven't skimped on game space. QuickTime videos of actors in period dress are faultlessly and frequently integrated and run well. Similarly, the sound effects are superb: open the door from Leonardo's echoey invention hall to the garden beyond and you cue all the sounds of a warm Italian summer night, from the chirping of crickets to the striking of a distant clock – the humidity practically drips from your speakers.

Gameplay?

So does the gameplay suffer for this jaw-dropping beauty? Not really. There's lots to explore and the puzzles will stretch all but the most brilliant of game-players. Collecting and using items is as simple as dragging and dropping, and the changing cursor icon distinguishes the items that can be investigated more closely from what is merely scenery. Background information is supplied at your base, where keying into a computer/virtual reality thing supplies you with vital clues (in perfect QuickTime, obviously). Finally, the innovative time travel feature helps break up the usually linear nature of adventure gaming.

This is a great game and it's hard to find anything to criticise. It *is* an adventure game and, as such, one day you will finish it and, barring amnesia, it will stay finished. Okay, there's a scoring system, the aim being to complete the game with the perfect score of 15,000, but are imperfect scores motivation enough to replay an adventure? It's not likely. Also, the high quality of the graphics will almost certainly mean it's a smaller game than graphically simpler efforts, such as *Myst*, therefore providing less play for more money.

Look at it, though. It's beautiful, captivating and it plays brilliantly. *Buried in Time* would be good value at twice the price. **MF**



Ah-ha! This is a temporal anachronism, one of the seven you have to find. This particular one is a trainer footprint near the moat of a medieval castle. Subtle, eh?

Bottom right of your display is the navigator, which tells you what movements you can make in any given situation. Bottom middle is the inventory.

BURIED IN TIME

Price: £39.99. **Out:** now.
Requires: LCIII or better, 8Mb of RAM, System 7.0.1 or later, 256-colour, 13-inch monitor, 15Mb of hard disk space, double-speed CD-ROM drive.
Contact: US Gold on 0121 606 1800.

GRAPHICS 90%
Beautifully rendered interactive scenery and seamless integration of high quality QuickTime.

SOUND 82%
Some superb scene-building background effects, and the music's not as annoying as in most adventure games.

GAMEPLAY 86%
Difficult, addictive fun, and surprisingly non-linear for a graphic adventure game. Easily £40-worth of play.

MACFORMAT RATING 87%

TWO IN ONE

Disk One of *Buried in Time* contains both standard Mac and PowerMac native versions of the game. Also included are some System software items, such as Apple's *Multimedia Tuner*, which need to be installed in your System Folder.

WolfPack

Can a Mac simulation game possibly generate the tension and drama of life aboard a German submarine during the Second World War?

WolfPack is a simulation game that puts you in the warm seat of a German submarine captain, tasked with sinking those treacherous Allies who are hell bent on upsetting nice Mr Hitler.

You play the game from a single screen, which contains all the controls, dials and outside views. From here you can click buttons to dive, raise periscope, fire tube one and everything else you learnt from watching John Mills.

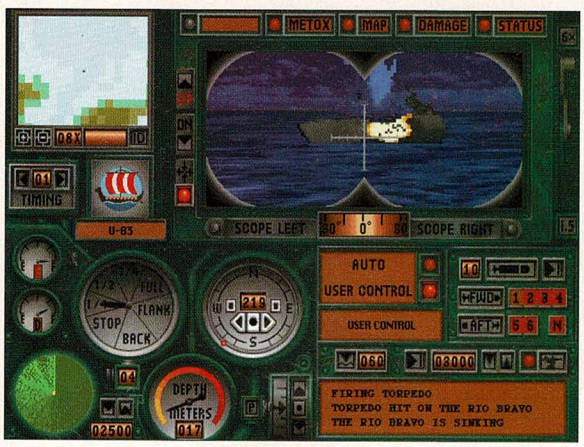
Your view of the world is restricted to a tiny window in one corner – this is no doubt in keeping with the cramped conditions of submarines, and is as close as you're going to get to claustrophobia in this game. An option to remove all the dials and instead have the view from the periscope fill the entire screen would have been useful, but once you've experienced that view, you won't really mind.

You see, unlike a flight sim, where graphics can be viewed from any angle as you spin and loop the loop, from a sub you only have a flat sea, always viewed from one height at one angle. This should mean plenty of spare processor energy devoted to creating the few things you can see, such as ships and coastlines. Yet the graphics are extremely blocky. Rather than being 3D models rendered in real time (as in most flight sims), they're sprites. So ships don't smoothly turn in the water; they jerk suddenly from head on to 45 degrees to side on. As you sneak up behind a ship, its pixels get bigger and bigger until it's just a featureless splodge in the middle of your little periscope.

Graphics aren't everything, however, and it makes a change to see a game that is playable on entry level Macs, but atmosphere is essential to a sim game, and with its blocky graphics, insipid sound and unrealistic feel, *WolfPack* fails to generate any sense of claustrophobic excitement.

CD VERSION

The CD version of *WolfPack* is essentially the same as the floppy version but with a few animated sequences thrown in, which are actually quite good. Unlike the game's graphics. Shame, that.



Direct hit on a tanker! Environmentalists had better steer clear of this game.

Well, in *my* U-boat...

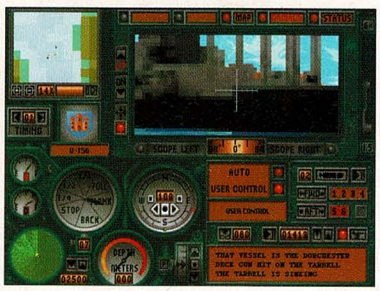
Not having a WWII German U-boat in my lake at home, or ever having captained one, it's impossible to pass comment authoritatively on the extent to which *Wolfpack* captures the handling nuances or not. However, a click on the compass flips the sub around and changes direction quicker than you can in a Skoda.

With few controls to master, you quickly get into the game, but you'll find that many of the 70 missions go something like this: rise to 15 metres below surface, up periscope, see Allied ship, fire two torpedoes, wait a minute for them to hit, end mission. There are few variations on that theme, and the briefings you receive at the beginning of the mission – that a convoy may be carrying vital components or troops – make no difference to the game. A freighter sinks whatever it's doing. Without going into technical detail, submarine warfare is fairly straightforward, and *Wolfpack* reflects this.

A little more complex is when you captain the Allied shipping and go sub hunting – you get to try your hand at this in about a quarter of the missions. Sub hunting is more tactical and much more skillful than commanding the submarine, and it gives you good insight into how destroyers and their weapons work. It also enables you to develop better hunting tactics when you're next in a sub sinking British shipping – perhaps this game will find favour with those who thought *Wolfenstein* was anti-German.

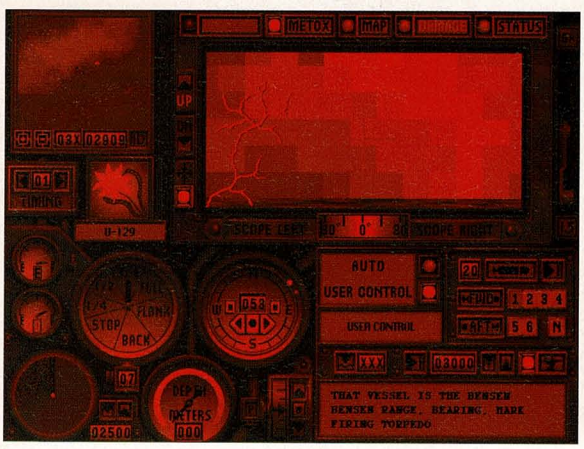
Converting the tension of submarine warfare to a computer screen is really an impossible task, but with the game's lack of atmosphere, you could be playing the Allies trying to sink German ships. Or the Japanese trying to sink Australians. It's addictive in the short term, but you'll probably finish all the missions in a week and feel little compulsion to return to the icy waters of the Atlantic. It's just not deep enough.

DEREK SMITH



Wow, look at them graphics! Ships become pixellated and coasts look like they are made from cereal packets.

This is the view from the bridge of a destroyer. Hmm... looks rather like the same view you get from a submarine.



When the red lights come on, it's not because you're on emergency power. It's because you're dead.

WOLFPACK

Price: £29.99. **Out:** now.
Requires: LC or better, 2.5Mb of RAM, System 6.0.7 or later, 12-inch colour monitor.
Contact: Kixx on 0121 625 3366.

GRAPHICS 40%
Pathetic, although the game does run on an LC.

SOUND 50%
Ping...

GAMEPLAY 75%
Enjoyable in a sadistic sort of way, but short-lived and lacking depth.

MACFORMAT RATING 68%

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Dust

A tumbleweed skitters past, driven by the gritty wind. A harmonica plays a distant, lonely tune. Another day dawns on the dusty, ramshackle MACFORMAT office.

KING'S QUEST
The latest in the *King's Quest* series is *King's Quest 7*, which scored 80% in MACFORMAT 26. The games are essentially gorgeous-looking, fairy tale-style, lengthy graphic adventures.

Installing and starting up *Dust* was a complete pig. It took three different Macs and many more restarts to get it running. After much anguish, you find yourself in the town of Diamondrock, New Mexico, 113 years ago, with little clue as to what to do next.

Dust – A Tale of the Wired West proves to be a point-and-click adventure in the manner of the *King's Quest* games. Except that, being on a CD-ROM, it features 'multimedia enhancements'. First, when you move to a new location the view scrolls almost smoothly in 3D, reeling frames off the CD. And second, when you click on a character to speak to him, his lines are spoken by an actor by way of a sort of video/rendered-graphics fusion. Both of these features work fine and add to the atmosphere and sense of 'being there'. The trade-off here, as you'll discover in a moment, is in disc accessing delays. But anyway.

So, you're at the entrance to Diamondrock, with desert behind you and unfamiliar streets ahead of you. The first thing you need to do is find somewhere to sleep, because it's getting dark, but the hotel claims to have no rooms free. The solution involves a bit of puzzle-solving. As the game progresses you'll find yourself replacing the recently-deceased sheriff (Diamondrock is, of course, a pretty rough place), dabbling with Native American mysticism, and eventually, with luck, finding a way to escape from this godforsaken town.

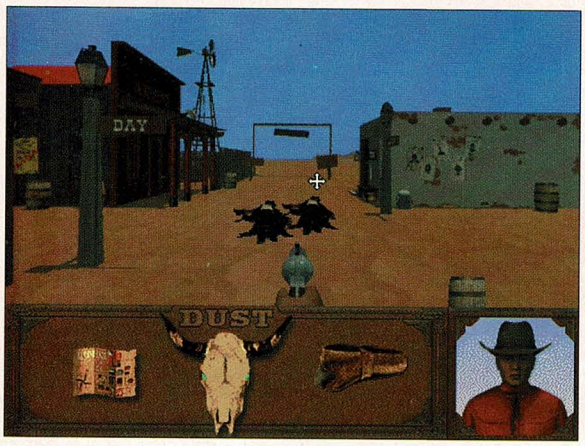
Aside from the puzzling, there are excellent gunfights, one of which has you roaming the whole town picking off The Kid's henchmen from rooftops and behind barrels – not quite *Marathon*, but, fresh from watching *The Quick and the Dead* at the cinema round the corner, hugely enjoyable.

The only snag plot-wise is that you never really leave the area of the town during the course of the game. In something like *King's Quest 6* you're constantly on the move, solving the puzzles in one bit and then moving on to somewhere else. I was getting a bit sick of wandering around Diamondrock after a few hours of play. Perhaps that's the whole point – it worked okay in *The Quick and the Dead*.

Dust's other problem, and the one that really has you struggling to maintain interest in it as time goes on, is that its reliance on the CD-ROM means constant interruptions for disc accessing. After staring at a blank screen for five seconds, you're hardly in the mood to tolerate sitting and watching an actor reeling off his not-exactly-inspired lines for yet more precious seconds before you can get on with actually playing the game.

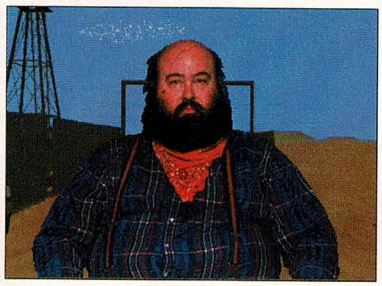
If you're prepared to make allowances, though, there's plenty to enjoy in *Dust*. It's atmospheric, has some neat ideas in it and the gunfights really are great.

JONATHAN DAVIES



That gunfight scene. Fortunately The Kid's men are incredibly poor shots, and generally end up like this...

...or even like this.



Eurch. That shirt and necktie were obviously chosen for maximum intimidation effects. He's doing himself no favours.

Here's Diamondrock, complete with people standing idly around in the street for no obvious reason looking a bit frightening and rendered.

DUST

Price: £39.99. **Out:** end of October.
Requires: LCII or better, 8Mb of RAM, System 6.0.7 or later, colour monitor, double-speed CD-ROM drive.
Contact: BMG on 0171 973 0011.

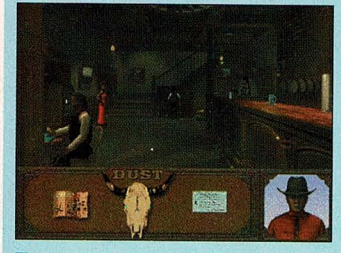
GRAPHICS 81%
An interesting blend of actors and rendered scenery.

SOUND 83%
Annoyingly over-the-top voices, but good music and sound effects.

GAMEPLAY 70%
Entertaining enough, although the progress is rather stop-start.

MACFORMAT RATING 72%

DON'T TRY THIS AT HOME



The local saloon provides not only refreshments, but also various ways of topping up your supply of dollars.

There's poker, for example, against three opponents who could have stepped out of any major Western.

Or a one-armed bandit, albeit one without too many nudges and holds.

Or blackjack. With all of these, though, you're more likely to end up much poorer than you started.

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CD ROM SOFTWARE

Emulators Unlimited contains Software emulation tools for the PC, MAC & Amiga. Spread over various platforms are emulators for: Apple, BBC, Commodore 64, Commodore VIC20, Amstrad CPC, Apple Mac, Gameboy, Atari ST, MSX, Apple200, Atari 800, Atari1040ste, Sinclair QL, Unix and more. Also features hundreds of games, tools and demos for use with most of the emulators.

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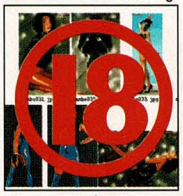

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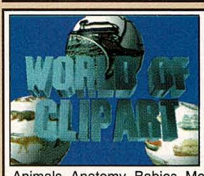

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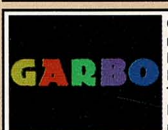

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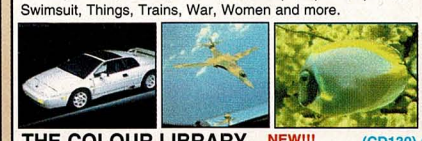

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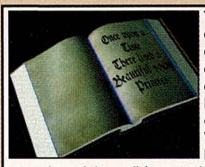

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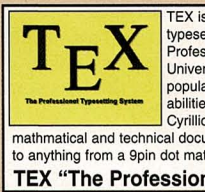

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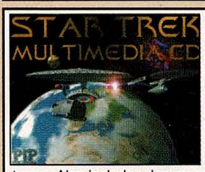

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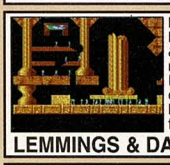

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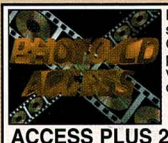

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Sort your life out

Information is power. But you need to be organised if you want to instantly access the right information at the right time. Rod Lawton drops a few hints.

Macs excel at storing, organising and presenting information, which makes them particularly suitable for Personal Information Management (PIM) packages, dedicated to keeping your busy life organised. But do they work, or are they one more complicated chore? Can they ever replace the trusty Filofax?

We tested four different PIMs with a wide range of prices and ambitions: *Expresso 1.0*, *Claris Organizer 1.0*, and two two-in-one bundles – *DateBook & Touchbase Pro Bundle 4.0* and *Now Up-to-Date & Contact 3.5*. Each has the ability to do the following:

1. Store contacts' names, addresses, telephone numbers and sundry details.
2. Keep a list of the jobs you have to do and whether they've been completed (a to-do list).
3. Display a diary, where you can add appointments, tasks, holidays and everything else you plan ahead for.

The differences between the programs lie in how quickly and easily they perform these functions, how much they disrupt your work while you enter and retrieve information, and what other features they offer. We'll take a look at all the features the PIMs should offer, but it's up to you to decide what's most important for your needs. Do you need to prioritise jobs into umpteen different categories? Do you want to keep a log of phone calls you've made? Do you want everything linked, so that if you change a telephone number the program automatically alters it everywhere else it appears?

You might want something sophisticated that answers almost every possible need, or you may want to keep things as simple as possible. Everyone has different organisational methods, and if your PIM is to help you, rather than get in the way, you must make sure you choose the right software.

SYNCHRONISE

All of these packages, with the exception of *Claris Organizer*, will synchronise files kept on different machines – one at home, say, and one at work, or on an office network.

Calendar modules

Expresso has only three views (monthly, weekly and daily), but a great 'flashback' system that turns your calendar display into your Mac's Desktop background image. Appointments can't be dragged out as blocks, but you can type text directly into the calendar display in any view. To-do's are best entered separately and dragged onto

If your PIM is to help you, rather than get in the way, you must choose the right software

the appropriate date. It's all quick, but rather unsophisticated.

Claris Organizer also offers only three views, monthly, weekly and 'multi-day', though the last of these can be configured to show just one day or several. In the multi-day view you can drag out appointments and type in the box, but to-do's must be typed in via a dialogue.

Datebook Pro goes further, offering quarterly, monthly, weekly, 'multi-day' and day views, and it offers menu options that you can use to examine today's to-do lists, high priority jobs and other specific categories. However, its data entry options are weak – you have to use a dialogue, instead of being able to drag out time blocks or simply type your to-do's and jobs straight onto the display.

Now Up-to-Date offers the most viewing options by including a year view. Appointments can be entered via a dialogue or dragged out on the display. To-do's must be entered via a dialogue.

Expresso – **good**
Claris Organizer – **very good**
DateBook & TouchBase Pro – **very good**
Now Up-to-Date & Contact – **excellent**

Contacts

Expresso's contacts are stored in a list view – double-clicking on a contact calls up that contact's 'detail' card – a system used by all the programs. Contacts can be sorted by name, company or any other field, and an alphabetic tab bar enables you to find contacts quickly. In the detail view you can also date stamp and log conversations.

Claris Organizer also enables you to sort contacts by any field and the detail view can store lots of information, including categories (you can separate personal and business contacts, for instance). You can also create and attach notes, to-do's and appointments.

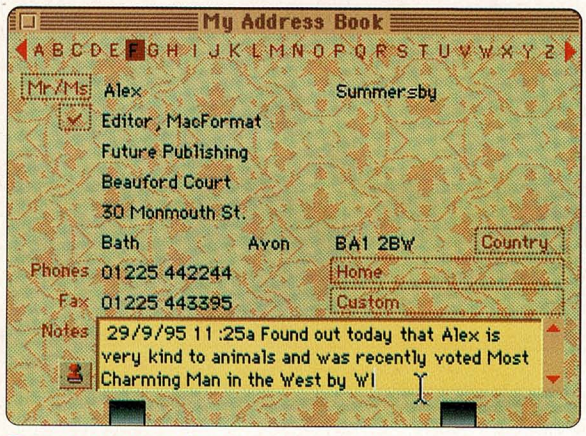
Touchbase Pro, like *Expresso*, has alphabetic tabbing. In detail view you can log phone calls, set up and view appointments and even attach external files. There's a global find/change function and you can check for duplicated records.

Now Contact's detail view enables you to add keywords as a more flexible form of categorisation. As with *Touchbase Pro*, you can log conversations and attach relevant documents. Everything is date stamped, and can be sorted by date and other criteria.

Expresso – **good**
Claris Organizer – **excellent**
DateBook & TouchBase Pro – **very good**
Now Up-to-Date & Contact – **excellent**

To-do lists

Expresso's to-do's, like those in the other applications, are listed in a



Expresso's contacts cards enable you to add and date stamp notes. This feature is useful for logging phone calls or just for general remarks.

Expresso is alone in enabling you to type text directly into the calendar display – even in Month view.

separate window. Once created, they must be dragged manually onto your calendar, and they are not carried forward automatically. They can be given three different priorities, though, and several statuses.

In *Claris Organizer* you can double-click on the lower part of the multi-day display to create a to-do for that day. To-do's are either done or undone, but they can be given one of five priorities, carried forward automatically and they will even post reminders to you in advance.

DateBook Pro to-do's can also be carried forward and prompt you in advance. Usefully, you can attach external files. There are three priority levels (how many do you need?) and their status can be Pending, In Progress or Completed.

Now Up-to-Date to-do's also have three priority levels, and three different status settings – Not Done, In Progress and Done. These can be carried forward automatically and you can attach contacts.

Expresso – **fair**
Claris Organizer – **excellent**
DateBook & TouchBase Pro – **very good**
Now Up-to-Date & Contact – **good**

Other features

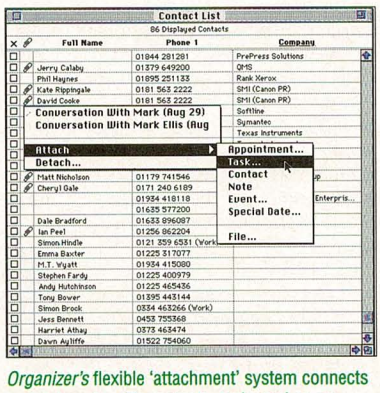
Expresso possesses only one unusual feature – but it's a unique one. It can save the current *Expresso* screen as your Desktop pattern, which means it's always visible, but it never gets in the way. Of course, you have to activate *Expresso* again to edit anything, but it's still extremely useful.

Claris Organizer is a workmanlike product that leaves nothing out, but has no unique features.

DateBook & TouchBase Pro does have some interesting extras – most usefully it enables you to create and track projects. Like *Now Up-to-Date & Contact*, it can attach external files and uses keywords to offer more sophisticated search facilities. It does have some networking features, but not on the same scale as *Up-to-Date & Contact*.

Now Up-to-Date & Contact offers the biggest feature list. It has powerful network tools, including the ability to schedule meetings automatically. It also has an attached word processor for dashing off quick faxes and letters, as well as the ability to attach external files to your records and launch them too. And Newton users will shortly be able to buy a utility that enables *Up-to-Date & Contact* and the Newton to synchronise files.

Expresso – **fair**
Claris Organizer – **fair**
DateBook & TouchBase Pro – **very good**
Now Up-to-Date & Contact – **excellent**



Organizer's flexible 'attachment' system connects appointments with contacts, tasks and so on.

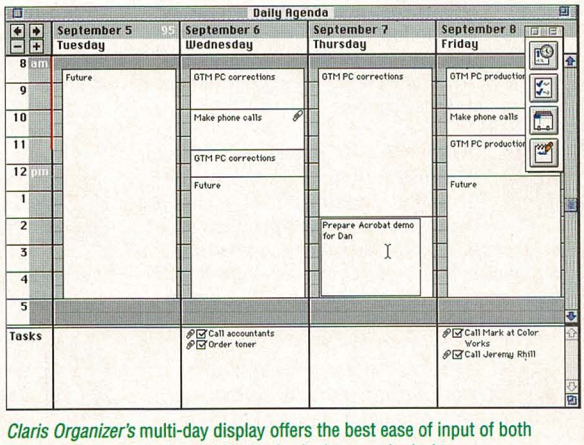
Integration

Expresso's different modules are well integrated in as much as they look part of the same family and work together, but there is no 'live' linking – if you change a telephone number in contacts, for example, *Expresso* doesn't cross-reference all its sections and automatically make that change everywhere else. When you drag and drop, you're copying items, not linking live data. You can trace a path back to

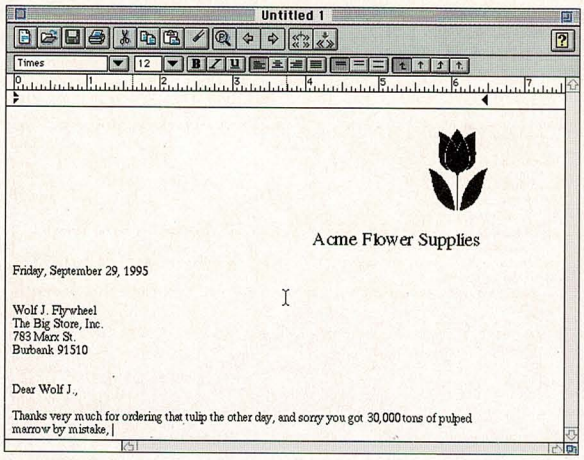
Continued on next page

ACT SOON

Symantec are shortly to release version 2.5 of their powerful information management package *Act!* Look out for a review in MACFORMAT soon.



Claris Organizer's multi-day display offers the best ease of input of both appointments and tasks, and its display is the most logical too.


Untitled 1
Times
12
Acme Flower Supplies
Friday, September 29, 1995
Wolf J. Flywheel
The Big Store, Inc.
783 Marx St.
Burbank 91510
Dear Wolf J.,
Thanks very much for ordering that tulip the other day, and sorry you got 30,000 tons of pulped marrow by mistake,

Contact's attached word processor enables you to quickly bash out letters or faxes. You can create your own designs, too.

the original from a 'linked' item, but that's only half a solution. If this is a feature that you're looking for, you'll be disappointed with *Expresso*.

Claris Organizer's integration, by vivid contrast, is superb. The modules are clearly part of the same family, and the 'attachment' system offers immense flexibility and live information sharing (you can attach appointments to notes, to-do's to appointments and every other combination you might need). Sometimes, though, it gets hard to work out what's been linked to which and where.

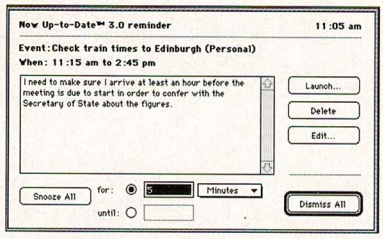
DateBook and *TouchBase Pro* are two separate applications, but they've been integrated well – they offer drag-and-drop linking, and the whole thing works together seamlessly.

Up-to-Date and *Contact* are linked just as smoothly. While you're not likely to forget that you're working with two different applications, it will never cause problems for you either.

Expresso – **poor**
Claris Organizer – **excellent**
DateBook & TouchBase Pro – **very good**
Now Up-to-Date & Contact – **very good**

LESS IS MORE

It takes discipline to keep your information up to date. The best software for you may be the simplest to grasp rather than the most powerful.


Now Up-to-Date™ 3.0 reminder
11:05 am
Event: Check train times to Edinburgh (Personal)
When: 11:15 am to 2:45 pm
I need to make sure I arrive at least an hour before the meeting is due to start in order to confer with the Secretary of State about the figures.
Launch...
Delete
Edit...
Snooze All
for:
Minutes
until:
Dismiss All

Now Up-to-Date can display these alert dialogues even when the application itself is not running.

Looks

Expresso, the cheapest program here, looks fantastic. It offers 20 very different designs, and they're clearly the work of a designer, not a programmer. Some even come with animations that cut in when nothing's happening.

Claris Organizer, by contrast, is a model of efficiency, but uninspired. At best it's elegant, at worst colourless and boring, but it does the job well.

DateBook & TouchBase Pro looks as if it belongs in the early '80s. Whatever the merits of the software, the display is dismal. You can customise the views and add icons to calendar displays, but you're still left with an application that is as stylish as a Christmas cracker gift.

Up-to-Date & Contact looks better, but not much. The calendar's month view is the worst offender. Everything is so tiny – sentences wrap out of view, icons make it look cluttered and the overall effect is tacky and confusing.

Expresso – **excellent**
Claris Organizer – **good**
DateBook & TouchBase Pro – **poor**
Now Up-to-Date & Contact – **fair**

Speed of use

Expresso is quick to use – it doesn't do enough to get bogged down, after all. Clicking between views and windows is fast, as is name sorting and finding. Best of all, items are entered in pop-up scrolling windows (or 'wells' as the program calls them). It's quick, neat and easy to use.

Claris Organizer's appointment entry is as direct and simple as *Expresso's*, and adding to-do's to specific dates is a little quicker, although contacts are slower to find because there are no alphabetic tabs. The 'attachment' system is easy to grasp and makes all the modules available to all the others at all times. This is the only application, however, that doesn't have a quick-access icon on the menu bar.

DateBook & TouchBase Pro make data entry – especially appointments – clunkier, but two icons on your menu bar offer cut-down calendar and contacts functions. *Mini DateBook Pro*, which displays today's appointments and tasks in a Desktop window, offers cut-down calendar options which are very handy.

Up-to-Date & Contact provide two icons on your menu bar which display the day's appointments and tasks, and

TEN THINGS TO LOOK FOR IN A PIM

1 Calendar: you need to be able to see your appointments quickly, and waste no time entering them. You need at least monthly, weekly and daily views, and a graphic display helps you avoid double-booking. It's even better if you can 'drag out' your appointments in boxes directly onto the display and type straight into them. You should also be able to drag appointments from one day or time to another, and edit them easily.

2 Contacts: even if you're working in another application, you should be able to look up telephone numbers quickly and jot them down. Look out for PIMs that enable you to do this from an icon on the menu bar.

3 To-do list: you're likely to have lots of different types of jobs. Some will be urgent, needing to be done on or by a specific day, while others will be expendable or low-priority. A good PIM can handle all kinds of variables, and it will also carry forward undone jobs from day to day until you do them.

4 Other features: some PIM software works over a network, automatically notifying other copies of the program on another machine when a meeting has been organised. This type of system can save duplication and mistakes if several people use and maintain one 'contacts' file. A clever PIM may also be able to record the outcome of a telephone call and even attach files created by other applications to specific contacts or appointments.

5 Integration: it's useful to be able to turn a to-do into an appointment just by dragging it to the right window. Similarly, it should be easy to attach contact information to scheduled meetings, and when you change contact details in your main contacts file, these changes should appear throughout other modules. So the integration should involve real 'live' links, not just copying of data.

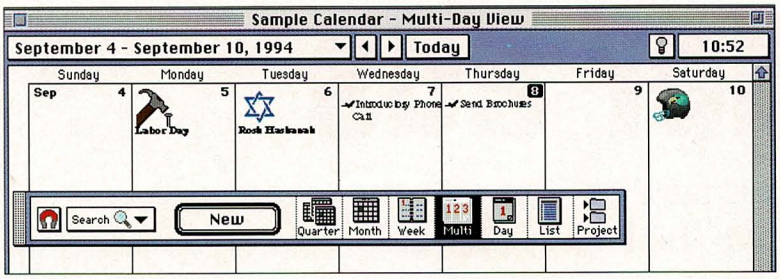
6 Looks: you're going to be spending a fair amount of time looking at your PIM, and its visual appeal is important. A cluttered, ugly display can discourage you from bothering to maintain your information.

7 Speed of use: how quickly can you check a telephone number? How long does it take to enter an appointment? Can you easily track down the last conversation you had with one of your business contacts? Is it easy to move an appointment from one week to the next? How long does it take to switch from another application to your PIM?

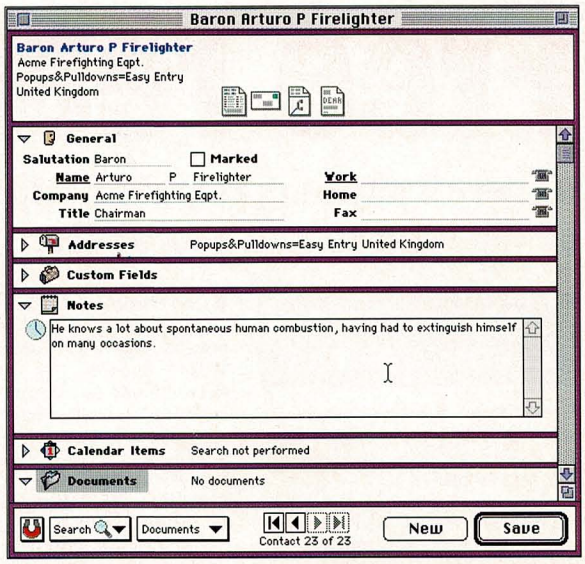
8 Printing: when you are working away from your desk, you might need printed copies of your contacts list or diary. A good PIM can output in a variety of designs, including templates for standard Filofax-style stationery, and may even allow double-sided printing.

9 RAM requirements: you're going to want to run your Personal Information Manager most of the time. This either means a chunk of RAM being lost forever, or a program with a cut-down mode that offers the most important features and uses much less RAM. Some PIMs consist of two or more linked applications, which tend to use more RAM than single-application PIMs.

10 Value for money: what do you need a PIM for? How many advanced features are you likely to need, and when do diminishing returns set in? Note that additional features can get in the way of speed.



If you feel your calendar display lacks visual interest, *DateBook* offers a selection of pre-designed icons that might help to liven it up (as does *Up-to-Date*). A nice touch, even if not really necessary.



TouchBase's contacts cards enable you to store an amazing amount of information, including date stamped notes, attached documents and linked calendar items.

open the relevant application. You can also put contact details in the Contact menu. The two applications are 'integrated' by *QuickPad*, an Apple menu item that enables you to enter appointment and contact details without starting up the full applications.

Now Up-to-Date & Contact has some nice shortcuts, but the two applications seem excessive. For some reason, typing notes in the Contact module is extremely slow.

It's hard to establish any difference in speed of use between these four packages. They could all be improved and no one application is noticeably better than any other.

Expresso – **very good**
Claris Organizer – **very good**
DateBook & TouchBase Pro – **very good**
Now Up-to-Date & Contact – **very good**

Printing

Expresso offers little choice of output. It's stylish, but not very versatile.

Claris Organizer is little better. You can customise layouts, but only in terms of the information included, not their basic design.

DateBook & TouchBase Pro has more powerful printing functions and a wide variety of templates for different stationery sizes – including special organiser stationery.

Now Up-to-Date & Contact can output practically any information in any format on everything but the kitchen sink. In fact, it's hard to believe anyone could ever need all these options (which include double-sided printing).

Expresso – **poor**
Claris Organizer – **poor**
DateBook & TouchBase Pro – **very good**
Up-to-Date & Contact – **excellent**

Memory requirements

Expresso, thanks partly to its colourful designs, needs 2Mb of RAM to run. That's not excessive, but there's no cut-down version that gives you a subset of the features, which means you need to keep it running all the time.

Claris Organizer also needs to be running all the time, but it runs in only 1.2Mb of RAM.

DateBook & TouchBase Pro don't take up any RAM at all, as long as you use the cut-down options available from the menus. However, if you do want to keep both running, you're going to have to wave goodbye to 2.2Mb in total. That sounds a lot, but it compares favourably with to *Expresso's* demand for 2Mb in which to run only one application.

Up-to-Date & Contact take 2Mb per application, so running them both all the time will cost you 4Mb. Ouch. You do get *QuickPad*, though, which allows sophisticated data entry without loading either application.

DateBook & TouchBase Pro and *Up-to-Date & Contact* are both available with cut-down features without any real RAM overhead. But if you want all your personal information manager's features on tap right away, the two single-application products are less RAM hungry.

Expresso – **good**
Claris Organizer – **very good**
DateBook & TouchBase Pro – **good**
Now Up-to-Date & Contact – **good**

Value for money

It all depends on what your main needs are. It could be that your life is busy and straightforward, in which case one of the cheaper packages could do the job admirably. Or you may be doing lots of very complex jobs at the same time, in which case the power of *DateBook & TouchBase Pro* or – to an even greater extent – *Up-to-Date & Contact* may be essential. But are they worth the extra cash, seeing as extra power also means giving up extra RAM? Your choice.

Expresso – **excellent**
Claris Organizer – **very good**
DateBook & TouchBase Pro – **good**
Now Up-to-Date & Contact – **good**

MF

USE A DATABASE

Even a comparatively simple database like the one in *ClarisWorks* can store contact information in several different layouts, and you can customise each to suit your specific needs.

THE ONE FOR YOU?

Expresso is unlike all the others here – it's cheap, easy to use, lacking in some important areas... and it looks fantastic. It isn't as flash as the other PIMs, but its simplicity and stylishness make you *want* to use it, and that's more important than being able to print double-sided pages.

Claris Organizer is elegant and efficient. It doesn't have the colour and style of *Expresso*, but it doesn't have the crass and dated look of *DateBook & Touchbase* or the clutter of *Up-to-Date & Contact*. Data linking is smooth, flexible and neat. If you're willing to pay twice as much for live linking, which *Expresso* doesn't offer, this is for you.

Although *DateBook & TouchBase Pro* gets a black mark for the way it looks, it's still a powerful product at a less-than-extortionate price. It does everything that *Claris Organizer* does and more, is well thought out, and has valuable features, like its project management abilities.

Now Up-to-Date & Contact has the biggest feature list, and while it does hog 2.5Mb of RAM and 5Mb of hard disk space, it's been well planned and thought out, offering enough power to organise a small nation.

EXPRESSO 1.0

Price: £25.52. **Out:** now.
Requires: LC or better, 2Mb of RAM, System 7 or later.
Contact: Softline on 0181 401 1234.

MACFORMAT RATING 89%

CLARIS ORGANIZER 1.0

Price: £57.58. **Out:** now.
Requires: any Mac, 1.2Mb of RAM, System 7 or later.
Contact: Claris on 0181 756 0101.

MACFORMAT RATING 84%

DATEBOOK & TOUCHBASE

Price: £81.08. **Out:** now.
Requires: any Mac, 1.8Mb of RAM, System 7 or later.
Contact: Now! Software on 01525 237001.

MACFORMAT RATING 65%

UP-TO-DATE & CONTACT 3.5

Price: £116.33. **Out:** now.
Requires: LCII or better, 2.5Mb of RAM, System 7.01 or later, 5Mb hard disk space.
Contact: Now! Software on 01525 237001.

MACFORMAT RATING 89%

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■ **PowerBook 520** 4/250, brand new, still boxed, only used once, all disks & manuals, many extras – £990 ono. ☎ 0973 241415.

■ **Performa Plus** 14-inch monitor, less than 12 mths old, as new, boxed with cables, manual – £100. Lancs ☎ 01695 575044

■ **Modem:** US Robotics Mac'n'Fax 14,400, brand new, unused – £175. Steve ☎ 0171 210 6110 (work) or 01732 740521 (eve)

■ **PowerBook 100** 4/160 & internal 9,600 fax/data modem – £150. Richard ☎ or fax 01562 864222 (eve/wkend)

■ **HP inkjet** colour printer – £100; *Stacker* for Mac – £30; ten 44Mb Syquest cartridges – £195 inc p&p. ☎ 0181 941 0409 or e-mail **alan@hecate.demon.co.uk**

■ **Centris 610** 4/80 CPU with leads, System software, *MS Works* – £350 ono. Stephen, Glasgow ☎ 01505 336738

■ **PowerBook Duo** 230 8/80, 14,400 fax/modem built in with dock, 14-inch screen, k/board, mouse, home use only, exc cond – £1,180 ono; StyleWriter II – £100 ono. ☎ 01273 735653

■ **Mac SE30** 5/40 CPU only – £225; Mac SE 2.5/40 CPU only – £175; accelerator & network cards available. ☎ 01273 820571

■ **PowerBook Duo** 210 and Duo dock, also power supply. Home use only, exc cond – £850 only. Lewis ☎ 01453 842928

■ **Linotronic 100,** rip and processor for 12-inch bromide/film output, 1,270 dpi, Mac interface, can be seen working – £3,500 ono. Paul, Scotland ☎ 01259 725005

■ **Apple 12-inch** RGB colour monitor, boxed, as new, home use only – £60; Power User 24/95 fax/modem – £50; *Write Now 3* – £15. ☎ 01689 811142

■ **LC 630** 8/350 CD, AV 14-inch monitor, mouse & k/board, inc various graphics based software packages, original disks & manuals, home use only – £1,250. Mike ☎ 01703 731795

■ **HP DeskWriter** 310 portable inkjet printer with colour capability, light home use – £110. Stephen, Glasgow ☎ 01505 336738

■ **SE 1/20,** Turbo mouse, StyleWriter 1 – £200. ☎ 01962 854950

■ **LC475 8/120,** extended k/board, one yr old, boxed, exc cond, hardly used – £700 ono; 17-inch colour monitor, one yr old, hardly used, boxed – £450. Kate ☎ 01530 817103

■ **Performa 475** 4/160 & StyleWriter, 14-inch colour monitor, System 7.5, mouse, k/board, boxed, as new, 8 mths old – £720. ☎ 0171 252 3870 (after 7pm)

■ **Global Village** Teleport Gold 2 fax/modem, up to 14,400 bps (V.32bis), 5 yr warranty, 3 mths old, 2 books: *Internet Starter Kit* and *The UK Internet Book* – all for £100. ☎ 0171 252 3870 (after 7pm)

■ **LC 6/40** & FPU, 12-inch Apple colour monitor, k/board, mouse, System 7, manuals, boxed, home use only – £440. Norwich ☎ 01603 621156 (eve)

■ **Apple 5.25-inch** external PC drive plus NuBus card – £45 ono. Norwich ☎ 01603 621156

■ **Canon CLC10** colour copier/scanner/printer with Mac & PC IPU interface, new cartridges, exc cond, cost £6,000 – sell £2,900. ☎ 01442 259815

■ **LC 4/40,** mono monitor, ImageWriter 2 printer, ideal for writer, graphics, small business, System 7 sound and 6.4 complete package, exc cond, boxed – offers. ☎ 0181 224 3998

■ **165c PowerBook** 14/120, Global Village internal modem inc – £1,250. Simon ☎ 01332 340272 (day)

■ **LCII 5/160,** 14-inch colour Apple monitor, k/board, mouse, manuals, original packing, System 7.1, exc cond – £550. Staffs ☎ 01283 512154

■ **Caere Omniscan** handheld scanner – £220; *MS Works 3.0*, boxed, unregistered – £35; *Civilization, SimCity, SimLife, A-Train, Monkey Island 1*, all boxed – £15 ea. ☎ 0113 278 6741

■ **PowerBook Duo** 280, 12Mb RAM, external 1.4Mb floppy, duo floppy disks – £1,000 ono. ☎ 01438 314758

■ **Large Kurta** graphics tablet (12-inch by 12-inch), with pen, manual, software, ideal for tracing, retouching etc – £250. Mike ☎ 01753 523378

■ **Radius 20-inch** greyscale TPD monitor with card for Mac II series – £120; Apple TPD/A4 card & cable – offers. Mike, Slough ☎ 01753 523378

■ **Centris 610** 8/235 with internal CD, 1Mb VRAM, System 7.1, manuals, home use only – £700. Patrick ☎ 01232 421677

■ **Kurta IS/ADB** input tablet, 8.5-inch by 12-inch, with pen, no software – £20. ☎ 01793 872282

■ **US Robotics** Mac & fax Sportster modem 14,400 v32, new, in box – £140. Peter ☎ 01603 737549 or e-mail: **RudranihPeter@rudi.demon.co.uk**

■ **Performa 400** 6/140, Apple 14-inch Trinitron monitor, *ClarisWorks, Symantec C/C++*, System 7, some games, home use, mint cond – £495 ono. Sheffield area ☎ 01246 417103

■ **Radius Videovision** Studio 2 for PowerMac, latest version, boxed & under warranty, bundled software – £1,595 ono (less than half new price). ☎ 01926 843755

■ **Mac IIcx,** 13-inch high res colour monitor, manuals, k/board, *HyperCard Basics*, exc cond – £500. Charmaine ☎ 0171 733 1257

■ **Radius Videovision** NuBus card, connections, software, video & sound in/out, also drives 24-bit monitors, can be used with JPEG card – £950 ono. ☎ 01582 485267

■ **Mac IIci** 8/160, Cache card, System 7.5, k/board, mouse, 14-inch colour monitor, CD150 with cables – £750. ☎ 01564 777245

■ **LCIII 8/80,** 14-inch Apple high res colour monitor, k/board, mouse, Apple CD300e Plus drive, *ClarisWorks*,

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■ Keynet BBS now on-line ☎ 0181 954 0847. For musicians, music, MIDI, *Finale, Cubase* etc. Mac, PC, Atari. Two high speed lines, 24 hours. (MF32)

■ The Computer Textile Design Group. The essential link between computer and textile designers. Contact Dee Chester, 12 Le Brun Road, Eastbourne, BN21 2HZ. (MF32)

■ NW Macintosh and Apple user group. Cheshire area. Contact Sean McCleery ☎ 01270 624271. (MF33)

■ New Oxford user group. We're looking for members, help and shareware. Send an SAE to 30 Sandfield Road, Headington, Oxford OX3 7RJ. Monthly magazine! (MF33)

■ Pentrisoft – the programmers' user group. Distribution, tips and advice. Write to Stéphane Gray, 'Oaklands', Rock Lane, Hastings, East Sussex, TN35 4NY for details. (MF33)

■ Appel Club Eindhoven, The Netherlands. Contact Arie Nagel ☎ +3140 523879, or e-mail: **a.p.nagel@bdk.tue.nl** (MF33)

■ The Mac Netsurfer Group – a net discussion group for Mac users. Fax me (Josh) on ☎ 0171 328 5888 or e-mail: **Maniac@badapple.demon.co.uk** (MF33)

■ ClubMac Cork, for all Mac enthusiasts outside of Dublin. Monthly meetings, own Bulletin Board, newsletter etc. Online to Internet at meetings. New members welcome. For details telephone or fax Dominic Murnane ☎ 026 41167 or e-mail **dominicm@eirenet.net** (MF33)

■ MACBEL User Group VZW – Belgium's only non-profit Mac User Group. Bi-monthly magazines, Internet discounts, local BBS support (Telefinders 32-3-4543069) and meetings. Contact Bart, Belguim ☎ + 32 3 6404031 or e-mail: **info@macbel.be** (MF34)

■ Mac Jungle BBS on 01235 520507 – Telefinder host – 28.8K V.34 modems – over 1Gig of Mac shareware on-line! Now supporting TLAN conferences daily! (MF34)

■ Midapple, the Apple computer users' group in the West Midlands. Monthly meetings, newsletter. Send SAE for details to Midapple, 24 High Street, Wall Heath, Kingswinford, West Midlands, DY6 0HB. (MF36)

■ Brighton Hanover Computer Club for Mac, IBM and Amiga users. Meet fourth Tuesday every month, at the Hanover Centre, 33 Southover Street, 8pm. For details contact Colin ☎ 01273 602834. (MF36)

■ New BBS starting out, called The Mac Factory. Specialises in Mac shareware & freeware. ☎ 01977 708911 (24hrs). SysOp Mark Evans.

■ Massacre Bulletin Board now on-line. Modem speeds up to 14,400 24 hrs. ☎ 0131 447 9199 (MF37)

■ Red Apple Software, the Distribution Group! Non-profit making shareware authors who provide an established network for old & new programmers. Write to: RAS, Lane End, Oak Tree Lane, Tavistock, Devon PL19 9DA or log on to Apple-Eye BBS on 01234 822180. Red Apple/PentriSoft in the Computing conferences folder. (MF37)

Groups are listed here for six issues, then deleted in order to help weed out defunct groups. The code at the end of each entry is the last issue in which it will appear. If your group isn't listed here, then send us your details!

Please note: this list is provided as a free service for amateur, non-profit-making Mac user groups. MACFORMAT does not endorse or recommend any group and cannot be held responsible for any problems you might suffer as a result of contacting groups advertised here.

Compton's Encyclopaedia, SimLife, The Tinies, Sky Shadow, MacPaint, Air Warrior, World Tour Golf CD, MF June '94 CD, good cond (upgrading) – offers? Adam ☎ 01594 825583 (after 6pm)

■ **Performa 600CD,** 5Mb RAM, 80Mb hard drive, CD-ROM drive, inc SVGA colour monitor with adapter cable – £800 ono. ☎ 01704 563353

■ **Performa 450** 8/120 with CD300e+, *ClarisWorks 3.0, Cinemania '94,* System 7.5.1, lots of shareware, StyleWriter II, all for £1,000. Ed ☎ 0181 748 0284

■ **Mac IIcx,** 13Mb RAM, 200Mb hard drive, System 7.5, Apple CD-ROM, Personal LaserWriter 320, k/board, mouse, extras – £1,000 ono. Paul ☎ 0181 478 6513 (eve)

■ **Newton MessagePad** 110, as new, still boxed, unwanted gift – £195 ono. ☎ 01691 661632 or 0850 560840

SOFTWARE FOR SALE

■ ***Kaleidagraph 3.0*** (native) boxed, as new – £60; *PC Exchange* – £10; *At Ease* – £10. Simon ☎ 0181 441 2780

■ ***PageMaker 5,*** boxed with manuals, *Kidpix, Kidpix Companion, Kid Art – Monsters, Time, Animals, Quick Figure Pro for Newton* – offers. David ☎ 0113 278 0691

■ ***MS Works 4.0*** (latest verson), brand new, unregistered, unopened, accelerated for PowerMac, RRP £125 – only £35! ☎ 01733 573813 (anytime)

■ ***Myst* – £30;** *Daedalus Encounter* – £35; *King's Quest 7* – £35; *The Best of Microprose* (four games) – £20; all CDs, will swap. Gary ☎ 0181 672 2297

■ ***HyperCard 2.2,*** complete – £50; Danny Goodman's *Applescript Handbook,* brand new – £25; also his *HyperCard Handbook 2.2* – £20; others available. Mark ☎ 0181 224 6975

■ ***Add Depth*** – £25; *Adobe Streamline* – £30; *Bitfolio Maps* – £15; *ColorStation* – £35; *Expert Landscape Design* – £15; *Home Publisher/Type Twister* – £25. Mike, York ☎ 01347 810685

■ ***FileMaker Pro*** for sale, unwanted prize, unopened, cost £120 – sell £75. Alex, Hampstead ☎ 0171 435 6807

■ ***KeyCAD Complete*** – £15; *PhotoFix* – £60; *Publish It! Easy* – £35; *Redux* – £15; *StuffIt Deluxe* – £25; *Super ATM/Type Reunion* – £40. Mike, York ☎ 01347 810685

■ ***A-10 Attack,*** unopened, unwanted prize – £30. ☎ 01202 697070

■ ***Fontographer 4.1,*** boxed – £250; *StrataVision 2D,* latest version, boxed – £250. ☎ 0181 654 2849 (after 7pm)

■ ***Aldus IntelliDraw,*** *Digital Darkroom* – £100 for both, will split; *Sim Earth, Life & Death, PGA Tour Golf* – £10 ea. George ☎ 015396 24397

■ ***RAM Doubler*** – £35; *Creative Writer* – £15; *Underware* – £15; *Type Twister* – £20. All original disks and documentation. ☎ 01707 376850 (after 6pm)

■ **CDs:** ***Animals*** *San Diego, Leonardo The Inventor, Benjamin Bunny, Microsoft Dinosaurs, Guinness Records 1994,* all unboxed but have documentation – offers inc p&p. ☎ 01292 470630

■ **New CDs:** *Bloodbath* – £34; *Lunicus* – £19; *Dark Forces* – £38; *Journeyman* – £23; *Rebel Assault* – £24; ATM free with three or more games! Damien ☎ 0121 711 1766 (eve)

■ MacUser competition prize, **Saber Lan workstation,** no reasonable offer refused. ☎ 01923 772046

■ ***Claris Office,*** inc *MacWrite Pro, FileMaker Pro, MacDraw Pro & Claris Resolve,* all with manuals – £150 inc p&p. Simon ☎ 01256 460921

■ ***Claris Impact,*** complete, boxed & still shrink wrapped – unwanted prize! £30 only. Muhammad ☎ 0171 272 8502 (Mon to Fri, 9am to 6pm)

■ ***Discworld* game** for sale, one wk old, all manuals etc. James ☎ 01359 259408 (after 7.30pm)

■ ***PageMaker 4.2*** – £150; *Claris Organizer 1.0* – £15; *ClarisWorks 1.0* – £15; *PC Exchange* – £25; *Image Club,* business/industry EPSF images – £10; bargains. Richard ☎ 0181 965 9422

SWAP SHOP

■ Swap **Atari Jaguar** complete with six games, inc *Alien, Predator, Doom* (worth £300) for *Adobe Illustrator.* Mark ☎ 01734 745007

■ ***ClarisWorks* 1.0,** sealed & unregistered, upgrade to 3.0 will cost £49 from Claris – swap for *RAM Doubler, Kai's Power Tools,* or anything Mac related. ☎ 01704 550221

■ ***Monkey Island 1 & 2,*** *Iron Helix, Journeyman, Indiana Jones's Last Crusade* – swap for *Myst, Syndicate, Flashback, KQVI* or whatever. Glenn ☎ 0181 995 7040 (eve)

■ Swap ***Grolier Encyclopedia,*** *Leonardo, Dinosaurs, Guinness Book of Records, Benjamin Bunny, Animals!* CD-ROMs for whatever. ☎ 01745 832134

■ **SNES** with six games, Gameboy with four games and a Boosterboy for an LC Mac with mouse & k/board. Adam ☎ 01485 528206

WANTED

■ **A3 PostScript** level two 600dpi laser printer (or A4 with crop marks), SyQuest drive. ☎ 01785 46608

■ **Animation modelling** software wanted: *Strata StudioPro, Form•Z, Touch-3D* etc, original disks & manuals only, please. ☎ 0151 637 1863

■ **Native software** required, preferably CAD & rendering programs, possibly some RAM. ☎ 0171 275 7476

■ ***Prince of Persia*** wanted, cash or swap *Out of the Sun.* Rob ☎ 01892 783173

■ Second-hand **image setters.** Matt, Dublin ☎ 00 3531 296 2325 or fax 00 3531 296 2327

■ **Apple QuickTake 100** camera, CD300, greyscale scanner urgently wanted, must be good working condition. ☎ 0181 548 0403

■ **LC475** or faster Mac wanted for DTP and graphics, must be good working condition. ☎ 0181 472 5258

■ **StyleWriter,** Colour StyleWriter or LaserWriter, CD300 and US Robotics Mac & Fax wanted. ☎ 0181 472 5258

■ **MACFORMAT 1,** any cond considered. ☎ 01938 580429 (anytime)

■ **Driver software** for Microtek ScanMaker II for LCII, cash waiting. ☎ 0191 607 5390

■ Any unwanted **Macintosh CD-ROM** magazine discs. I'm willing to pay up to £2 per disc. Matthew ☎ 0181 524 4326 (eve) or 0973 301882 (mobile)

■ **RAM wanted** for LC475 – offers. Erik, Norway ☎ 00 47 578 57422

■ ***RAM Doubler*** & 4Mb RAM for Performa 460; *PGA Tour Golf.* Richard ☎ 0161 973 5226

■ **PowerDraw,** recent version. Phil ☎ 0171 435 0559

■ **16Mb SIMM** 72-pin RAM chip for LC475, will pay £150 cash and can collect. Rory ☎ 01782 750080 (eve) or 01782 750700 (day)

■ **SE30** with 4 to 8Mb RAM needed urgently, will pay reasonable price. Shane Sidlow, Kendal, Cumbria ☎ 01539 723197

MISCELLANEOUS

■ ***Fruit and Veg*** fanzine – the most fun this side of sharing a sleeping bag with Sharon Stone! Send £1 to Damien Breen, 20 Fenwick Close, Woking, Surrey GU21 3BY

■ **MACFORMAT** back issues, 3 to 13 with disks (no 5 missing) – £50 inc p&p, 17 to 26 with CDs – £50 inc p&p. Peterborough ☎ 01733 265165

■ Interested in **horse racing** betting software? Write to Chuchkov, 6 Place St Michel, Dijon, France.

■ **MACFORMAT** magazines & disks, March & May 1993, offers. ☎ 0181 452 7916

■ Are you interested in low cost, high quality **Prince fanzine?** Send your name and address to: The Experience, 58 High St, Garlinge, Margate, Kent, CT9 5LW

■ **Internet proofreader** wanted (science, humanities), English (native, orthography, style abilities) with good command of German (Mac & Internet box important) – £4 per page. Noel ☎ 0041 21 323 1707 (eve)

■ ***The Big Mac Book,*** *The Apple Macintosh Book, Technical Drawing with Claris CAD* – £8 ea. Mike ☎ 01347 810685

■ All **MACFORMAT** magazines, disks & CDs from issues 1 to 22, perf cond; boxed *Journeyman Project.* Sam ☎ 0181 462 3231

■ **Books** on the history of Apple Computer. ☎ (France) +33 26482151 or write to: 3 Glyn Place, East Melbury, Shaftesbury, Dorset SP7 0DP

Buying advice

Whether you're buying by mail or in person, here are a few basic, sensible precautions to bear in mind. Note that everything here applies to buying from a business; most of it does *not* apply to buying from a private seller in MACFORMAT's reader ads pages.

Always be absolutely clear about what is included in the price – postage and packing? Any necessary cables, etc? VAT? By law, an advert must say *explicitly* if VAT is not included; if it doesn't, VAT *is* included. But this could be in the small print – so make sure you read it all! If you're buying in person, check that everything is there and that it all works properly before you leave the shop. If you're buying by mail, ring the supplier first to confirm the price and availability, and ask what your options will be if there should be any problem. Find out when you can realistically expect delivery. Always keep all the receipts and make records of all correspondence, whether it's by mail or by phone.

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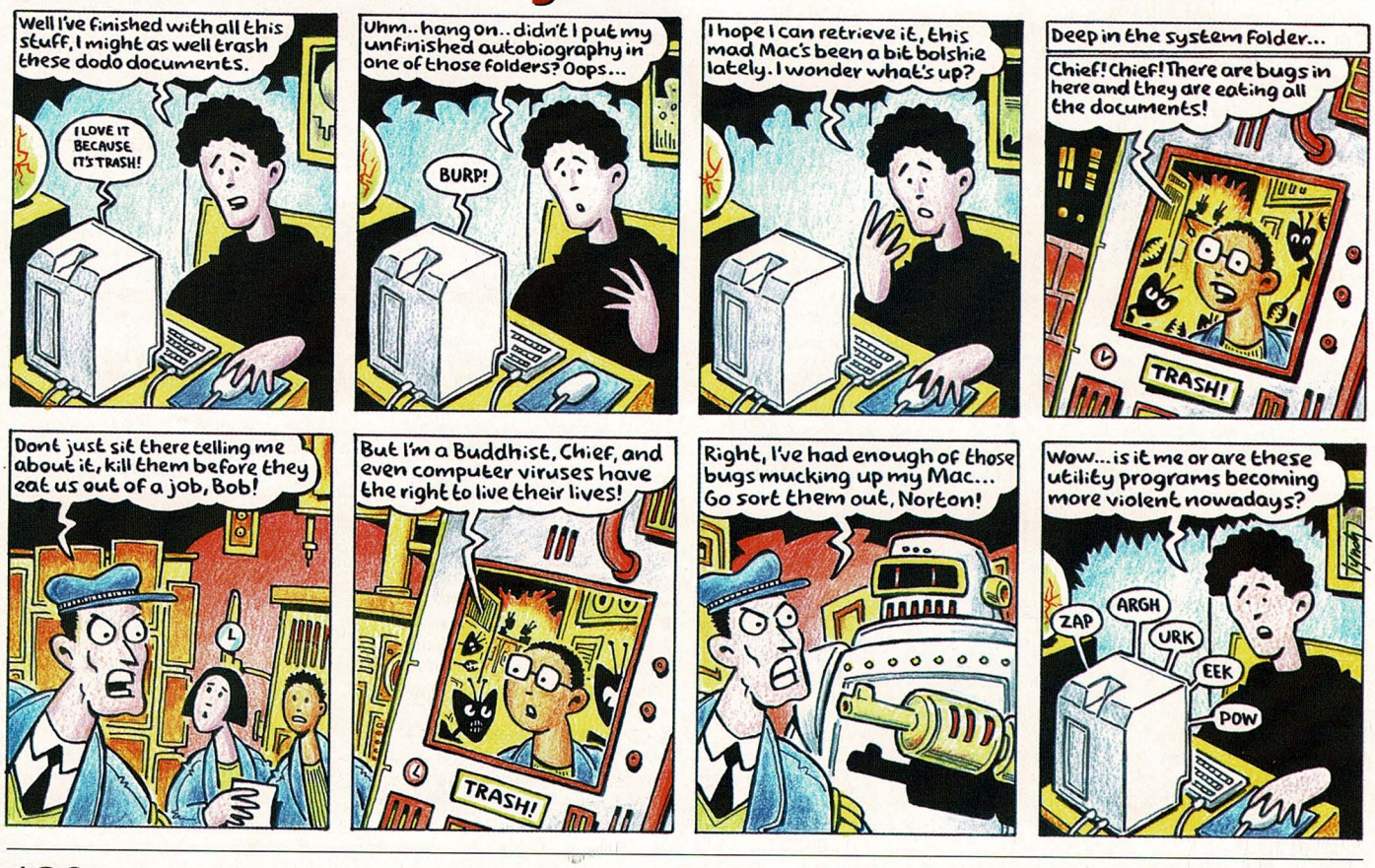
If the problem is still not resolved, you may need to take some sort of legal action to enforce your rights. This need not cost you a lot of money. You should seek advice from a solicitor (ask about the free advice scheme) or from one of the following organisations (check in your local telephone directory):

- Citizen's Advice Bureau;
- Trading Standards Office (listed under your local council);
- Office of Fair Trading; or
- County Court (ask someone there about the 'small claims procedure').

The Classic System Crew

By Bob Lynch


Well I've finished with all this stuff, I might as well trash these dodo documents.
I LOVE IT BECAUSE IT'S TRASH!
Uhm.. hang on.. didn't I put my unfinished autobiography in one of those folders? Oops...
BURP!
I hope I can retrieve it, this mad Mac's been a bit bolshie lately. I wonder what's up?
Deep in the system Folder...
Chief! Chief! There are bugs in here and they are eating all the documents!
TRASH!
Dont just sit there telling me about it, kill them before they eat us out of a job, Bob!
But I'm a Buddhist, Chief, and even computer viruses have the right to live their lives!
TRASH!
Right, I've had enough of those bugs mucking up my Mac... Go sort them out, Norton!
Wow... is it me or are these utility programs becoming more violent nowadays?
ZAP
ARGH
URK
EEK
POW

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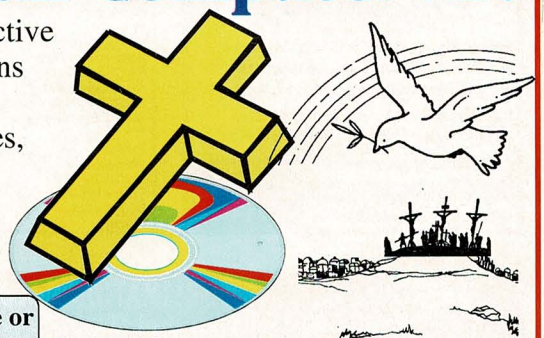

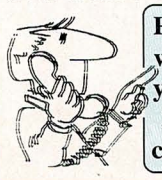

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An inferior imitation

What a load of ridiculous hype! Another MACFORMAT reader crusades for the Mac and scoffs at the behind-the-times PC brigade. Who needs Windows 95? Not us.

Like every other true Mac fan, I sat cringing at all the media coverage when, on 24 August, Microsoft finally launched Windows 95. I listened to the news reports and read newspapers declaring the new operating system to be the best thing since sliced bread. Or, if you believe the ads, the best thing since the wheel. Wow! You can plug and play. How wonderful! Documents can be represented by icons. Why hasn't anyone thought of this before?

It is sickening that the mass media have geared up for this launch when they don't even bat an eyelid at major developments on other platforms such as Mac OS 7.0 and 7.5. There was the odd sentence in the reports about how the Mac has been able to do this stuff for years, but basically all the coverage was thousands of pounds of free advertising for Bill Gates, extolling the virtues of his new creation. Does this guy have one heck of an ego. I seriously believe he wants to rule the world.

He even paid for the entire print run of *The Times*. This not only meant an ad for Microsoft on every other page, but a special 28-page feature on Windows 95. Was it objective? Did it do a fair comparison with System 7.5 and other GUI platforms? Nope.

I did, however, want to give the software a fair go. Even though I had read about all they had copied from our own Mac OS, I wanted to take an objective look at it. So I went to my local PC World to try it out. The only things I can say in its favour are that it was fast, and had smooth movie playing. That's it. The interface was a shambles. They had made the simpler, but nevertheless clunky, Windows 3.1 into an uncontrollable monster in an effort to emulate the near-perfect Mac OS.

For a start, the interface is confusing. Surely they could have come up with a better name for the functions menu than 'Start'. It doesn't even make sense. What does the 'Recycle Bin' recycle? And to access the disk drives, you have to open the 'My computer' icon. Even then, you can only access the floppy currently in the drive. Goodness knows how you do a disk-to-disk copy. This feature is an improvement over 3.1, but it is nowhere near the slick and sophisticated approach the Mac has had for many years.

When you try to perform a task on the Mac, the interface guides you towards what you're trying to do. But Windows 95 seems to bar your way to performing the simplest of tasks.

The worst thing about the new software is the cost. It may only cost £70 for an upgrade, but the average company will have to pay £1,000 per computer to train staff and upgrade the hardware. System 7.5 will run, albeit slowly, on a Mac Plus, but for Windows 95 you need a 386 with lots of other requirements. And Apple Guide shows the novice exactly how to perform a variety of tasks, so little training is required for Mac beginners.

Once again, we in the Mac world can sit back and laugh at the gullible PC users who have parted with their hard-earned cash to bring their computers up to the standard that Macs had in 1989. We know that one day our Macintoshes will be the best-selling computers on the market, and PCs will be a distant, bad memory. I have a Classic II. I wouldn't give it up for a Pentium PC.

Richard Bell
Bangor, Co Down **MF**

LIVING WITH THE ENEMY

I am a student of architecture, and I have found that exchanging formatted text, 24-bit graphic files and even three-dimensional models between PCs and Macs is very easy to do with the assistance of *PC Exchange*.

What you have to realise is that *PC Exchange* is only the supporting act in the compatibility quest, and all you need thereafter is the right Macintosh application. If you frequently need to exchange information with other computer environments, you'll soon find that true compatibility of files comes from the software and bears no relation to the hardware whatsoever.

Provided you have a disk mounter such as *PC Exchange* or *Access PC*, and the appropriate software, just about anything is conceivable.

The key is to find out what file formats the software can import and export. If an existing application of yours doesn't have the appropriate file filters for you, buy another one that does. Software companies, or their distributors, are only too happy to send you brochures that can tell you what file filters they have.

Anyone who has tried out the demos of *Adobe Photoshop*, *QuarkXPress* and the very useful shareware program *GraphicConverter* on past issues of MACFORMAT will know about the large list of file filters these programs have. Also programs such as *WordPerfect* and even *ClarisWorks* have very useful file filters, which further reinforce the fact that the need for *SoftWindows*, or the DOS compatibility card, isn't as imperative as some people will believe. Emulating, or buying a card to run, the useable but somewhat crude 16-bit Windows 3.1 operating system (when the Mac OS is 32-bit) is not always a feasible option, and a lot of the time can just be ignored.

M Elliott
London SW2

YOUR CALL

The opinions on this page are those of the authors, not necessarily those of MACFORMAT or Future Publishing Ltd. If you have something to say, write to 'Talking Point', MACFORMAT, 30 Monmouth Street, Bath BA1 2BW. We reserve the right to sub-edit your grammar, but won't alter the sense of any opinions.

Win the leading PC compatibility software

With *SoftWindows 2.0* installed you can run Windows applications on your Mac. We have ten copies to give away, courtesy of Insignia Solutions.

Wouldn't it be great if you could integrate your Macintosh with the world of the PC? Just think what you could do... Exchange information with your PC colleagues at work via PC networks or run all the applications that were once only available to PC users, on your Mac.

Well, here's your chance to do all these things, with *SoftWindows 2.0* for Power Macintosh, the leading PC compatibility software from Insignia Solutions. For both corporate and home PowerMac users seeking the world of the PC at their fingertips, it's just like the real thing.

SoftWindows doubles the versatility of your PowerMac in one simple installation, by putting a fully functional software PC right inside your machine. No matter which PowerMac you use, you can now run all Windows 3.1 and DOS applications – even those running in enhanced mode. So all the applications that were once only available to PC users are now accessible to you. For example you will be able to create spreadsheets in *Lotus 1-2-3*, access a company database in *Paradox* or even plan a project in *Microsoft Project*. With just a click of the mouse, Windows and DOS applications run in a window right alongside your Mac applications. And with its completely transparent interface, *SoftWindows 2.0* enables you to copy and paste from Windows and DOS programs directly into your Macintosh applications.

Networking? No problem. *SoftWindows* gives you instant PC connectivity. Featuring simultaneous Mac and PC IPX support, *SoftWindows* can access Novell NetWare, TCP/IP networks, LAN Manager, Banyan VINES and DEC PATHWORKS networks.

Other special features, such as Windows Sound Support and support for Apple Guide, mean that *SoftWindows 2.0* really is the most flexible PC compatibility solution available for Power Macintosh users.

SoftWindows 2.0 is available from Apple resellers or call the Insignia Solutions free hotline (0800 667706) for further information. We have ten copies of *SoftWindows 2.0* to give away (or copies of *SoftWindows 1.0 for Macintosh* for users of 68040 based Macs). All you have to do is correctly guess the location of the cursor in the screen shot below... and just when you thought you'd seen the last of 'Spot the Ball' competitions! Simply place an X in the box where you think the cursor can be found, fill in the attached section specifying which type of Macintosh you use and send it to us, to arrive here by Friday 1 December. Address your entry to: 'Looking into *SoftWindows*' competition, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

The Rules

Choose out of the 108 boxes on the screenshot and mark with a cross. Employees of Insignia Solutions plc, Future Publishing Ltd or associated companies, and their families, are not eligible to enter. Multiple entries are not allowed, unless engraved on a window (and if it's not a soft window, then make sure you package it carefully). The editor's decision is final, there is no cash alternative, and no correspondence will be entered into. Please state if you don't want your name to be added to a mailing list. **MF**

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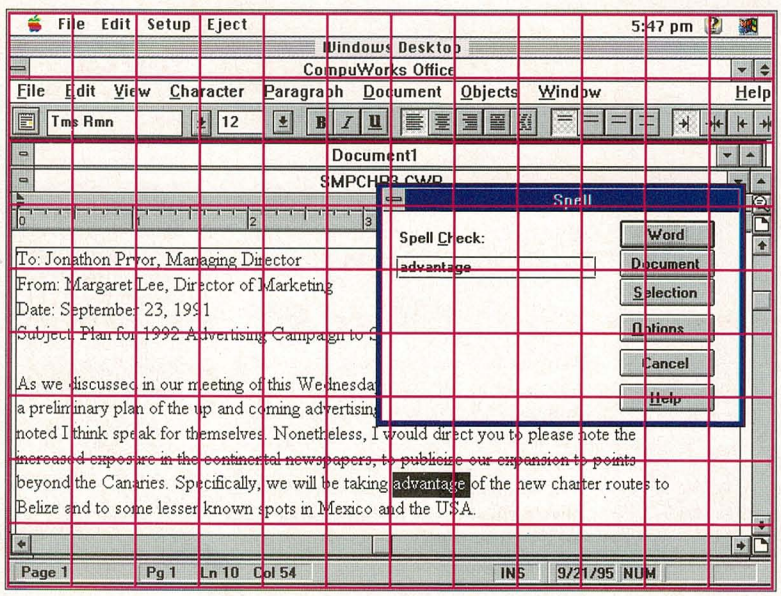
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The big picture – from the Tiny Zone?

Hello and welcome again to Tiny Zone, the section of MACFORMAT with its own unique perspective – looking up, mostly. Well, that Windows 95 thing just won't go away, will it? Last issue Tiny Zone invited comments on all the hype, but even we weren't prepared for the flood of responses. Well, okay, it doesn't really take *that* much to submerge something as small as Tiny Zone, but the Windows hype certainly seems to have touched a nerve. Mac users everywhere leapt to defend their machine and operating system – as well they might: not to put too fine a point on it, MicroSoft's claims for Win 95 are so much crapola. Technological breakthrough? Hardly. Quantum leap? Pull the other one. Significant development? Gimme a – well, actually, fair enough. Plug-and-play, a recoverable trashcan, the GUI-ness of the GUI, and all the rest of it *are* significant... on the PC. Okay, we've had all this and more on the Mac for over half a decade, but, in the cold light of day, to most of the population of the planet, 'computer' is just about synonymous with 'IBM-compatible PC'. Or rather, *MicroSoft*-compatible PC – and that's exactly what MicroSoft want it to continue to be. Desperately. As it becomes less and less vital what hardware you own (with Common Hardware Platforms, DOS cards and ever-cleverer emulation), it becomes more and more crucial what operating system you choose. You might say it's *because* the Mac OS is so brilliant that MicroSoft *must* sell Windows 95 so hard. If Apple could press the advantage, they could become not the second biggest selling *hardware* company after IBM, but the leading *operating system* supplier. The Mac OS is still the quality benchmark; now Apple just need to out-market MicroSoft.

NEXT ISSUE

Art Attack!

So just what can *Color It!* do then? Readers and professionals share their art techniques and secrets, showing you how to get the best out of a whole *range* of graphics software.

New Macs on test

PCI. 604 chips. Daughterboards. DIMMs. Open Transport. In many ways, the latest Macs – the 7200, 7500, 8500 and 9500 – are as different as the first PowerMacs were. We test 'em and reveal their secrets – and bugs!

QuickTime VR

How you can explore new worlds on your Mac with Apple's amazing virtual reality software!

PLUS *PageMaker 6.0* – is it now a *Quark*-beater? ■ Multimedia for kids – is it more than just an electronic child-minder? ■ Science on CD-ROM ■ Create your own games with *Klik 'n' Play* (if it's finished!) ■ The latest news, practical how-to's and authoritative reviews ■ Save £££ on top Mac products! ■ Free! *MacGamer* – the magazine for everyone who's *serious* about Mac gaming

ARE YOU A WINNER?

Back in MACFORMAT 26, we gave you the chance to win a brilliant Samsung SyncMaster 17GL 17-inch monitor, courtesy of Gasteiner Technologies. The lucky winner is Mrs G Westwood of Stoke, Plymouth. Well done!

In MACFORMAT 27, the prizes on offer were two Newton 110 MessagePads, with Mac Connection Kit and Mac Zone's *Newton Extras* software bundle, courtesy of The Mac Zone. And the winners are: Kenneth McAleese of Troon, Ayrshire, and David Goodchild of Northfield, Birmingham. Well done again!

And while we're being so generous, in MACFORMAT 28 the prizes were some of the newest graphics tablets from the leading Wacom range, complete with UltraPen Erasers. Winner of one of the new UltraPad A4 tablets is P Turner of Newport, Gwent. Kulbinder Dio of Northfleet, Kent, wins an UltraPad A5, and the following all score a compact ArtPad II: David Andrews of Chorley, Lancs; Mr S Baines of Maidenhead, Berks; Mike Eccles of Lytham, Lancs; Arleta Ford of London E9, and Stephen Higgins of Staines. Congratulations to all!

MACFORMAT 32 goes on sale on Thursday 23 November

Available with high density floppy disk or CD-ROM. Ask your newsagent to save you a copy or turn to page 121 for our special subscription offers

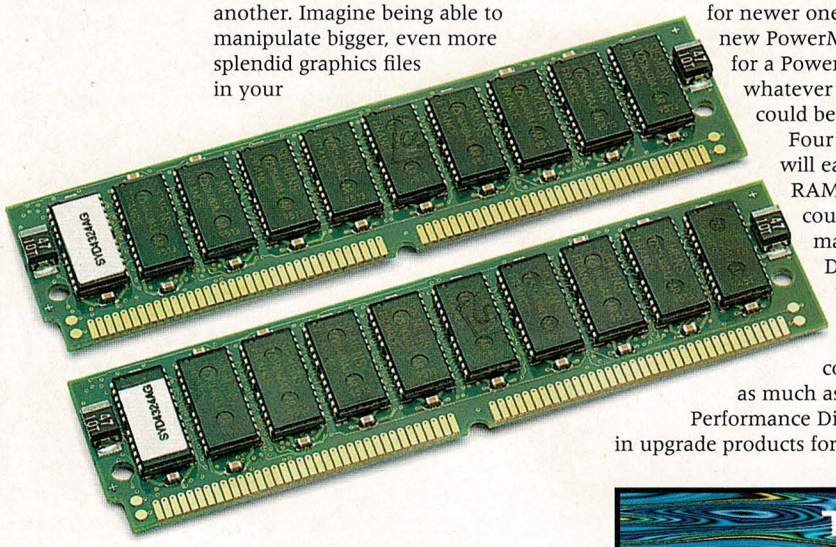
Win a 16Mb RAM upgrade for your Mac

Imagine what you could do with 16Mb more RAM – run more software, faster than ever! Four readers will win 16Mb of RAM each, courtesy of Performance Direct.

Memory is like money – you can never have too much of it. No matter what Mac you've got, no matter how powerful it is now, just think what it could do with another 16Mb of RAM!

Imagine being able to keep more applications open in the background, so you can save time and hassle switching between them – no more quitting out of one and relaunching another, which means waiting for it to laboriously load, over and over again. Imagine being able to leave one program to do its stuff in the background while you just carry on working in another. Imagine being able to manipulate bigger, even more splendid graphics files in your favourite graphics program, whether it's *Photoshop* or *Color It!*. Imagine being able to scroll around multi-page DTP documents as quickly as you want, with less waiting time for disk accesses. Imagine having the power to run just about any of the most demanding applications currently available, from high-end 3D rendering suites to professional-level sound and video programs.

Look, we don't have to go on, do we? We both know you'd love an extra 16 meg! Well, here's your chance to win a 16Mb RAM upgrade for your Mac – 30-pin SIMMs for older-style Macs or the 72-pin variety for newer ones, DIMMs for a new PowerMac, upgrades for a PowerBook or Duo – whatever you take, it could be yours!



Four lucky winners will each get a 16Mb RAM upgrade, courtesy of Performance Direct. Depending on which model Macintosh you have, this could be worth as much as £550!

Performance Direct specialise in upgrade products for the Mac. They sell and support RAM, accelerators, hard drives, optical drives and networking hardware for the Mac. Since 1992 they have sold over one million megabytes of RAM and hard drive storage to their 9,000 Macintosh customers. What's more, all of Performance Direct's RAM ships with a lifetime warranty and 30-day money back satisfaction guarantee.

To win a 16Mb RAM upgrade, just answer the three simple questions below and send us your entry on a postcard or the back of a sealed envelope – and remember to tell us what model Mac you have! The closing date is Friday 8 December 1995.

The Rules

Employees of Performance Direct, Future Publishing Ltd or associated companies, and their families, are not eligible to enter. Multiple entries are not allowed, unless attached to SIMMs (hey, *we* might like to upgrade *our* Macs, mightn't we? But *we* can't enter the competition, can we?). The editor's decision is final, no correspondence will be entered into, and there is no cash alternative (although if your Mac is incapable of taking an extra 16Mb of RAM, we'll sort something out). Please state if you don't want your name added to a mailing list. **MF**

performance direct

THE QUESTIONS

1. What does RAM stand for?
(a) Rigid Array Memory
(b) Recoverable Accelerated Memory
(c) Random Access Memory
(d) Red Apple Memory

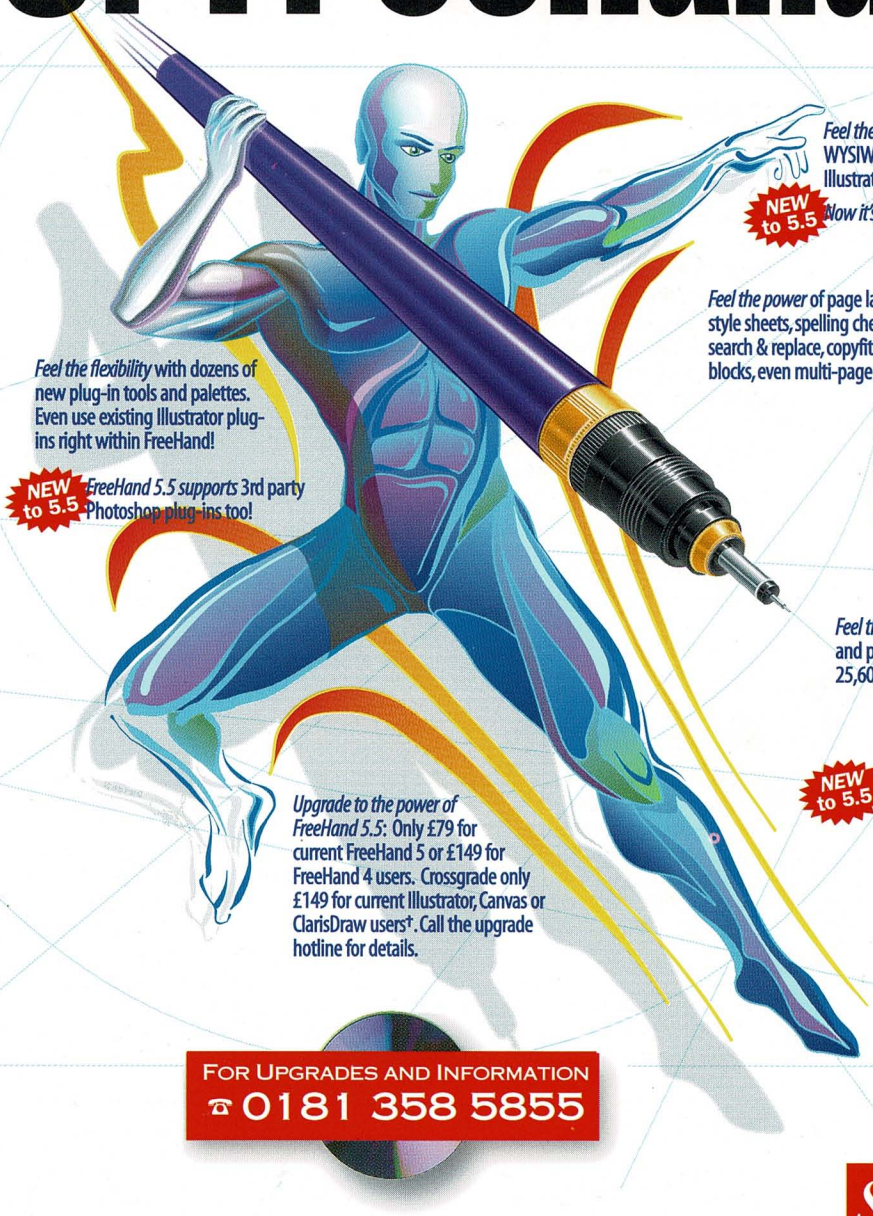
2. In what town are Performance Direct based?
(a) Blairmore, Argyle
(b) Bath, Avon
(c) Egham, Surrey

3. Which of the following can you *not* do with RAM?
(a) Set your Mac to store the most recently read data from the hard disk in a 'disk cache', for faster access next time it is needed
(b) Set aside some RAM to use as a 'RAM disk' – a super-fast virtual disk drive, no hardware needed
(c) Levitate your monitor three feet above the surface of your desk

Need help? All the answers are somewhere in this issue... Send your answers on a postcard or sealed envelope (remembering your name and address!) to: 'The Great RAM Competition', MACFORMAT, 30 Monmouth Street, Bath BA1 2BW. And *please specify what model Mac you have!*

Feel The Power Of FreeHand 5

FREE Upgrade to FreeHand 5.5
(If you purchase after 1 September 1995)



Feel the speed of working in the fastest WYSIWYG preview mode–faster than Illustrator and all the others!

NEW to 5.5 *Now it's even faster,* by upto 25%.

Feel the power of page layout with text style sheets, spelling checker, columns, search & replace, copyfitting, linked text blocks, even multi-page support!

Feel the flexibility with dozens of new plug-in tools and palettes. Even use existing Illustrator plug-ins right within FreeHand!

NEW to 5.5 *FreeHand 5.5 supports* 3rd party Photoshop plug-ins too!

Feel the possibilities of special effects like Fisheye Lens, 3-D Rotation, Multi-colour gradients, Calligraphy Pen, even Drag & Drop colour!

Feel the precision of "snap-to" grids, guides, and points–plus magnification of up to 25,600% on a massive 22' x 22' pasteboard!

NEW to 5.5 *Feel the reach of the Internet,* using the element renderer to create anti-aliased PICTS of FreeHand 5.5 objects to use in Web pages.

Upgrade to the power of FreeHand 5.5: Only £79 for current FreeHand 5 or £149 for FreeHand 4 users. Crossgrade only £149 for current Illustrator, Canvas or ClarisDraw users†. Call the upgrade hotline for details.

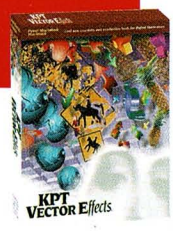
FREEHAND
DIRECTOR
AUTHORWARE
MACROMODEL
SOUNDEDIT 16
FONTOGRAPHER

FOR UPGRADES AND INFORMATION
☎ 0181 358 5855

Can you feel it? Ultimate power and unlimited freedom in design and illustration. It's all there in the FreeHand™ 5 and there's even more in FreeHand 5.5 which comes with 10,000 pieces of clip art and over 500 fonts completely free. So go ahead, take a leap into the future and feel the power of FreeHand for yourself.

Special Promotion

FreeHand 5 includes KPT Vector Effects (while stocks last)



"KPT Vector Effects sets a new standard for plug-ins. No other package offers such a broad range of effects and control features." *MacUser 7th July 1995*

CU COMPUTERS UNLIMITED

MACROMEDIA®

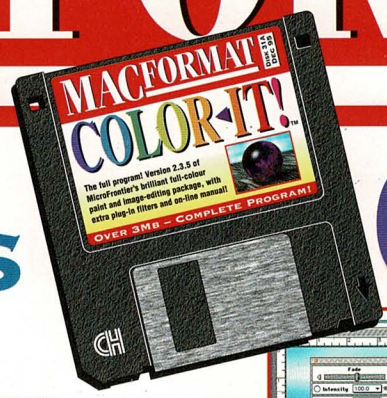
† Only valid until 31st December 1995. Macromedia is a registered trademark and FreeHand is a trademark of Macromedia, Inc. Other names are trademarks of their respective holders. © 1994 Macromedia, Inc. Prices are excluding VAT and handling.

7.2MB OF SOFTWARE ON TWO FLOPPY DISKS!

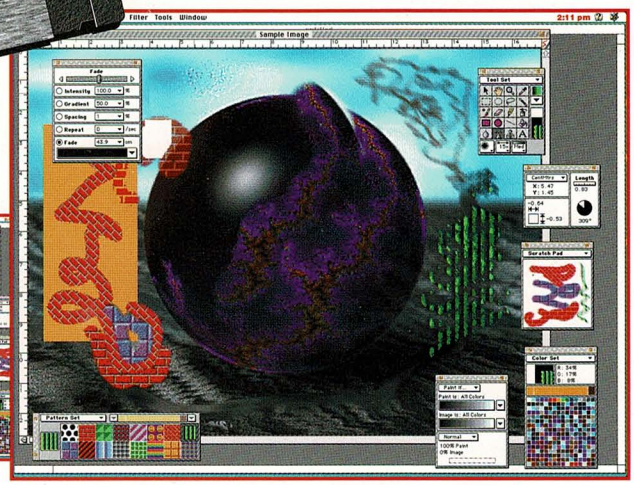
MACFORMAT

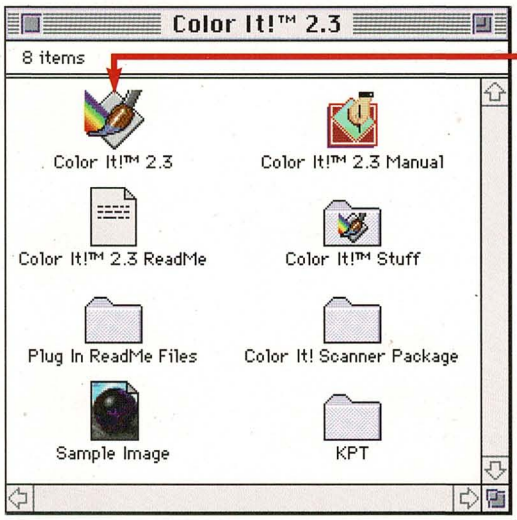
ON THE DISKS THIS ISSUE...

A real feast of software on our double disk special. For the first time we are delighted to be able to bring you a complete commercial program, *Color It! 2.3.5*. In addition we have a second disk packed with the latest shareware from the Internet – a couple of addictive games and some really handy utilities.


MACFORMAT
COLOR IT!
The full program! Version 2.3.5 of MicroFrontier's brilliant full-colour paint and image-editing package, with extra plug-in filters and on-line manual!
OVER 3MB – COMPLETE PROGRAM!

COLOR IT!™

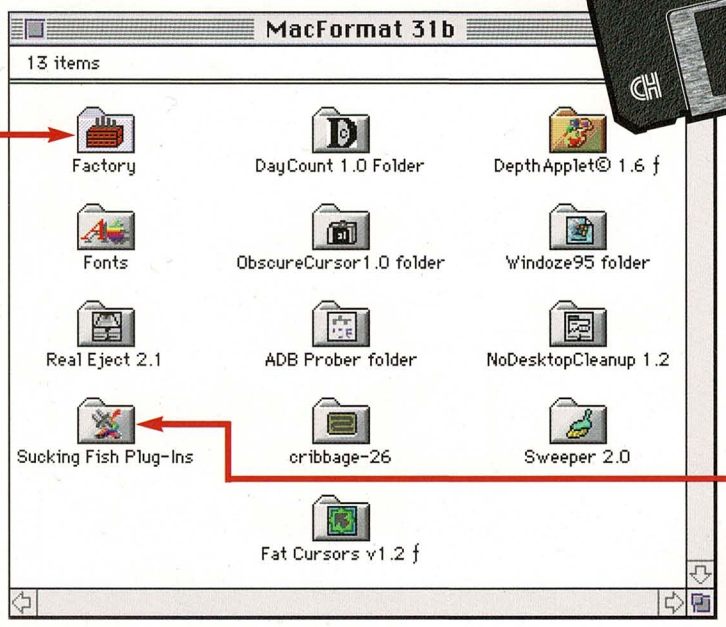


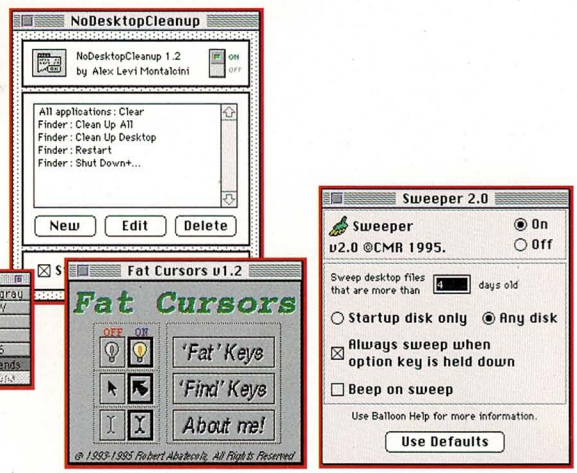


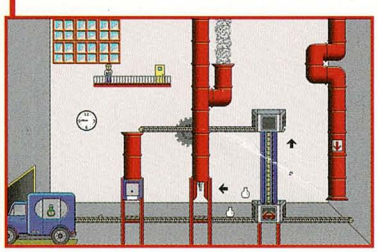
COLOR IT! 2.3.5 – COMPLETE!

We are pleased to bring you *Color It! 2.3.5*, the brilliant paint/image processing package from MicroFrontier. This is the full program, and you'll find everything you need to create your own stunning artwork, including a full software version of the manual. What's more, just for good measure we've thrown in a set of extra plug-ins to increase your imaging power!

MACFORMAT
FACTORY
See how you manage in this industrial puzzler!
PLUS Sucking Fish Plug-Ins ■ ADB Prober ■ Fonts ■ DepthApplet ■ Sweeper 2.0 ■ NoDesktopCleanup 1.2 ■ Real Eject 2.1 ■ DayCount 1.0 ■ Windoze 95 ■ and more
OVER 3MB OF GREAT SOFTWARE!

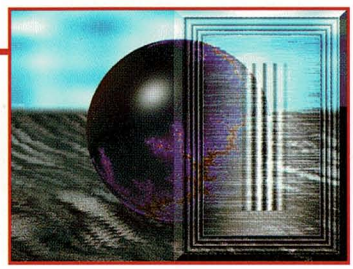






FACTORY

Factory sounds simple but rapidly becomes thoroughly engrossing. Each day you have to perform a different task, from putting lids on bottles to packing shoes or making hamburgers. As you progress you have to do more work to earn your crust – and avoid getting the sack!



SUCKING FISH PLUG-INS

More plug-ins for you to use with *Color It!* (or *Photoshop*...). This great collection, all the way from Japan, enables you to create stunning effects with just a click of a button.

UTILITIES

A mixed bag of utilities, from essential to just for fun! If you're used to using *SCSI Probe*, you'll be interested to know that you can now track down ADB (mouse and keyboard) problems using a similar program called *ADB Prober*. *Fat Cursors* is a utility that does two things: it enlarges the cursor (making it easier to see), and it enables you to set a key combination that highlights where the cursor is – dead helpful for all PowerBook users. *Sweeper* sorts out those annoying Desktop problems for you by deleting old Desktop files, and *NoDesktopCleanup* enables you to assign 'Are you sure?' type dialogue boxes to any of your menu items.